Textile World

October 19, 1929 ESTABLISHED 1868 Vol. LXXVI, No. 16

Formerly TEXTILE WORLD JOURNAL, with which are combined Textiles and Posselt's Textile Journal

Editors: CHARLES H. CLARK, CLARENCE HUTTON, DOUGLAS G. WOOLF

Published every Saturday by BRAGDON, LORD & NAGLE COMPANY, Division of McGRAW-HILL PUBLISHING COMPANY, INC., NEW YORK

The Week in Textiles

Outlook . . .

SITUATION SATISFACTORY in principal textile markets. . . . . Cottons firm, with buying slower . . . . Woolens and worsteds active for spot consumption . . . . Knit goods markets were slower, but firm. . . . . Rayon underwear moving . . . . Silks continued weak, spun yarns being sole exception. Broadsilks hesitant pending completion of spring showings . . . . Columbus Day and Jewish holiday curtailed week's turnover in all.

Cotton-Textile Institute . . .

ANNUAL MEETING of The Cotton-Textile Institute attracted representative mill men to New York last Thursday . . . . President Hines expressed desire to retire from office and recommended George A. Sloan as successor. . . . . The Whitman resolution to permit the Institute to engage in legislative activity in order to promote laws to curb night work, was defeated 450 to 145. The Institute thus reaffirmed its stand against entering field of political agitation, but vote does not directly reflect feeling of members on question of night work and attendant overproduction. . . . . Speech of Walker D. Hines summarized Institute's three-year fight against overproduction.

Silk Prices . . .

SILK IS already so cheap that no large decline seems possible. . . . . But it is equally difficult to see why it should advance. . . . . This is the dilemma confronting Dr. Haney in his attempt to analyze situation in this market. . . . . Therefore he arrives at the logical prediction that we must expect irregularity with weakness predominant during the next month or two.

Southern Labor Situation . . .

AMERICAN FEDERATION of Labor, at Toronto meeting, pledges fund for campaign for unionizing the South; situation described as "a challenge to the entire American labor movement." . . . . On the other hand, report of Employment Relations Committee of National Association of Manufacturers, presented at New York meeting, calls recent industrial disturbances in South as the "growing pains" of rapidly developing industrial areas. . . . . Trial for murder of Gastonia police chief draws to close at Charlotte, with summing up on Thursday and Friday. . . . . Rayon plants at Elizabethton, Tenn., operating at normal capacity despite alleged vote to strike announced by union last week.

The Master Mechanic . . .

"GLORIFYING THE Master Mechanic" might have been used as the title for H. H. Iler's article in this issue. . . . . It is encouraging to note that this important key-man in a textile mill is gaining recognition and that, in most plants, a real executive is replacing the "tinkerer" who was "tolerated" in the average organization some years ago.

A Call to Arms . . .

WOMEN ARE advised to rise in their might and resist the new fall fashions in clothes which the masculine minds of industry are attempting to force upon them. . . . . This advice is given by Miss Fannie Hurst, novelist, in interview published in New York *Evening Post*. . . . . "The leg is becoming nasty again, with its long silken coverings of skirts," says Miss Hurst. "It is no longer a means of locomotion. We are pulling in our waistlines, if we have them. We are going right back to where we started from—and yet we go over to Hoboken and laugh at the 'quaint' fashions of the '90's!"

"What Is Rayon?" . . .

OF THE 1,500 or more daily guests at the "Home Center" of the New York Federation of Women's Clubs in the Grand Central Palace, New York, almost an equal number of questions about rayon are asked, according to E. L. Starr, director of Rayon Institute. . . . . Hostesses of the "Home Center" inform Mr. Starr that nothing in the exhibition has attracted more attention than the rayons of different types on display in the Rayon Institute booth. . . . . A staff is equipping itself to handle all varieties of questions which run the gamut from "What is rayon?" to "How

can I determine the best qualities in rayon fabrics?" "How should I wash rayon underwear? Rayon crepe? Rayon voile?" and "What are the most fashionable rayon fabrics?"

General Industrial Outlook . . .

INDUSTRY THROUGHOUT the country at the present moment is just a shade more favorably situated than it was a year ago but numerous individual industries show recessions from their position last year and present a somewhat disturbing tone to the general picture, according to annual trade survey of National Association of Manufacturers, submitted at annual meeting in New York this week. . . . . In textiles, present trade is reported excellent by 8% of members who answered questionnaire; good by 43%, fair by 36%, and poor by 13%. . . . . Increased production is noted by 69%, decreased by 31%; increased sales quantities noted by 67%, decreased by 33%; increased sales values reported by 60%, decreased by 40%; stocks reported low by 25%, normal by 59%, and higher by 16%.

Cotton Goods Prices . . .

PRICES OF representative cotton gray cloths in both New York and Manchester markets fluctuated within comparatively narrow range during first half of 1929, according to compilation of international prices by Textile Division, Bureau of Foreign & Domestic Commerce. . . . New York average of seven representative cotton gray cloths was 38.70c. per lb. at beginning of year and 35.69c. at end of June, while comparable Manchester averages were 38.11c. and 36.74c., respectively. . . . . Margin between price of 1 lb. of raw cotton and 1 lb. of cloth for the half-year averaged 18.54c. for New York and 18.74c. for Manchester.

Mohair Plush Standard . . .

ADOPTION OF commercial standard for mohair upholstery plush will be considered at conference of manufacturers in Washington Nov. 8 under auspices of U. S. Bureau of Standards. . . . . Proposed standard establishes a minimum quality to provide satisfactory service based on material, color fastness, weight of pile, construction of fabric, and treatment to prevent attack by moths. . . . . Standardization project was promoted by National Upholstery Textile Association.

Textile Machinery Union . . .

MARTIN COLES HARMAN, chairman of John Hetherington & Sons, Ltd., textile machinery builders of Manchester, England, has caused sensation in Lancashire by his submission of circular addressed to shareholders of various textile machinery firms, suggesting that they exchange their shares for shares in a new Textile Machinery Union. . . . . Companies which would be affected, in addition to Hetherington, are Brooks & Doxey, Dobson & Barlow, Howard & Bullough, Asa Lees & Co., Platt Bros. & Co., and Tweedales & Smalley. . . . . Mr. Harman explains that union

TYPICAL FROCKS SEEN AT RECENT BEMBERG STYLE SHOW IN NEW YORK

Left to Right: Youthful model by Jenney in black and white crepe satin of Bemberg, featuring Eton jacket; sports frock by Schiaparelli, in brown and yellow corduline, the printing being done by a new process hitherto applied only to silk; frock of brown renaissance moire by Louise Selby, made of Bemberg and silk.

would aim at controlling sufficient votes of each of above companies to enable it to call meetings of shareholders whenever it desired to appeal to them.... Says competition would not be killed but unnecessary waste eliminated.....Some of the firms have officially expressed objections to the scheme but it is thought probable that Mr. Harman would have assured himself of a considerable measure of support before making this public suggestion.

Cotton Consumption . . .

COTTON CONSUMPTION by domestic mills in September was considerably higher than that in corresponding month last year. . . . . September, 1929, total was 545,649 bales against 492,307 bales in September, 1928. . . . . Cotton stocks Sept. 30, 1929, included 3,224,849 bales in public storage and at compresses, and 792,028 bales in consuming establishments, against 2,637,683 bales and 720,108 bales, respectively, on same date a year ago. . . . . Cotton spindles active during month totalled 30,037,922 against 28,209,094 in Septetmber, 1928.

Stockings Then and Now . . .

"SOUNDS LIKE the bunk" is notation made by member of editorial staff on a news item passed to editor for possible use on this page.....Editor agrees with him but prefers to put it up to the readers .....Item states that in the gay 90's, mother treated herself to about two dozen pairs of cotton stockings a year at total cost of about $10.00, while in 1929 average business girl will buy from 100 to 300 pairs of silk stockings with total cost for year ranging from $200 up into the thousands.....Several anonymous business girls, who were interviewed, are quoted..... Correspondent adds following authoritative clause: "Collected and wrote up for TEXTILE WORLD by ——"

Long Staple Cotton . . .

NOT TILL inch cotton gets inch price, says the Department of Agriculture, will farmers be induced to grow longer staple cotton.....Quality does not receive sufficient recognition in merchandising of cotton.....Department now is engaged in survey to determine to what extent prices paid at primary markets this year reflect the quality of the cotton..... Officials are hopeful that, with cooperation of marketing specialists, fiber technologists, cotton breeders and others concerned, facts will be developed to facilitate the work of all.

World Cotton Manufacturing . . .

OPTIMISTIC REPORTS regarding textile industry of the world were presented in interview with W. Irving Bullard, of Boston, published in *Paris Times* during Mr. Bullard's recent visit to that city in connection with trip through textile centers of Europe .....He believes cotton industry of world is becoming stabilized and earning power gradually being restored .....Interview states there is ample evidence showing that automatic looms will be generally adapted by cotton manufacturers in those countries which have been lagging to date and that this will result in lower costs and greater efficiency with a fair chance of profit.....Mr. Bullard is connected with E. H. Jacobs Mfg. Co. of Danielson, Conn.

Cellulose Acetate . . .

IT IS UNDERSTOOD that two rayon companies are negotiating for product of plant which U. S. Industrial Alcohol Co. is building at Baltimore for manufacture of cellulose acetate by process which they claim has many advantages over previous methods particularly in matter of cost.....Significant because it is first time that rayon manufacturer has looked to other sources for a semi-finished raw product, practically ready for spinning.....Might indicate an admission that other branches of chemical industry are in position to perform early stages of rayon manufacture more efficiently and more economically than the rayon producer himself.

Cotton Loans . . .

REPORT BY Chairman Legge, of Federal Farm Board, on loans the board has contracted to make and advances thereon up to Sept. 30 show one of $15,000,000 to $20,000,000 to American Cotton Growers Exchange for its 13 members, of which $750,000 has been advanced to Georgia Cotton Growers Cooperative Association; one of $6,000,000 to Staple Cotton Cooperative Association, an advance of $500,000 having been made; a reorganization loan of $25,000 for Arkansas Cotton Growers Association; and a reorganization loan of $100,000 to Tennessee Cotton Growers Association, all of which has been advanced.

The Textile Trend . . .

COTTON TEXTILE MARKETS: After an active September, cotton goods buying has slowed up considerably. Prices are firm and in that respect sellers disclose no effects from the last crop estimate. The somewhat bearish report has, however, caused a letdown of consumer interest as a stable market leads users into a waiting attitude, and they are filling in stocks only as needed. Carded broadcloths show some price weakness.

WOOL GOODS MARKETS: Active spot buying by tailors-to-the-trade continued. Topcoats have had a good season from all reports. Worsted dress goods are attracting greater attention and give broader women's wear market for wool goods. Recent opening of American Woolen included many light weight fabrics. Activity in outerwear worsted yarns continues; better interest from men's wear mills.

KNIT GOODS MARKETS: Columbus Day and Jewish holidays curtailed buying at all ends, but markets were fairly firm. Half-hose staples were steady, fancies slow. Full-fashioned lines moved briskly. Outerwear call leaned mostly to heavyweight sweaters and 1930 bathing-suits. Rayon lines most active in underwear field.

SILK TEXTILE MARKETS: Raw silk continued weak, and prices dropped 5c.; spirited future buying by hosiery trade encouraged importers. Thrown silk quiet. Spun yarns in steady call from wider markets. Broadsilk hesitant, pending October openings.

With · the · Editors · This · Week

Clarence Hutton Resigns

TEXTILE WORLD announces with deep regret the resignation of its technical editor, Clarence Hutton, to take effect Oct. 25. Mr. Hutton, who has been technical editor of this publication since it was formed as result of merger between *Textile World Record* and *Textile Manufacturers Journal* in 1915, leaves to enter textile consulting work.

His associates on TEXTILE WORLD feel keenly the loss of a brilliant worker and a good friend, but are glad to know that the textile industry will continue to have the benefit of his efforts.

The Institute and Politics

NO ONE can dispute the importance of the problem brought up by Eben Whitman at The Cotton-Textile Institute meeting this week. He performed a real service for the industry by focusing attention upon it anew.

Nevertheless it is unfortunately true that the Institute cannot participate in matters involving legislative and political considerations, and at the same time perform its function as an economic research organization. It must continue to develop, present and interpret facts—and trust to the National Council of American Cotton Manufacturers to vocalize the needs of the industry as reflected in those facts.

The Institute has a distinct factual job to do. Diluting its activities with efforts involving politically controversial matters would spell inefficiency, if not disaster.

Walker D. Hines

ANNOUNCEMENT of Walker D. Hines' desire to relinquish the active burden of the presidency of The Cotton-Textile Institute does not come entirely as a surprise, since rumors of his plans have been current. Nevertheless, the confirmation of these rumors evinces a note of deepest regret throughout the industry.

Mr. Hines brought to the job a background of experience which fitted him particularly well for the task which confronted him. In the three years of his presidency the Institute has revolutionized the fundamental psychology of the cotton manufacturing industry and has laid the groundwork for unrestricted progress in the future.

His life has been a full one and he is entitled to a period of less arduous activity. Fortunately, he is willing to continue his identification with, and interest in, the Institute as chairman of the board or in some similar advisory capacity.

His suggestion that George A. Sloan, present secretary of the Institute, succeed to the presidency, has the unqualified endorsement of TEXTILE WORLD. Mr. Sloan's experience and personality make him the outstanding candidate for this office. Assured of continued help and inspiration from Mr. Hines, and the support of the members, he can look forward to years of continued achievement within the Institute.

Textile Research

THERE has never been a time in the history of the textile industry since that transition period from hand to machine production known as the "Industrial Revolution" when the keenest practical and scientific minds in the industry were less certain than now of the accuracy of their knowledge of fibers and their processing. There is reason to believe that this awakening is largely due to contact with the synthetic fiber industry and experience in handling synthetic fibers. Yet if you speak of textile research to the average textile manufacturer today he will think of merchandising and not of technical research.

Both reflexes of the textile mind are logical. With production since the World War far in excess of normal consuming demand it is logical that manufacturers and merchants should have concentrated their efforts upon ways and means of increasing markets for their products and decreasing sales resistance. Systematic merchandising and style research have played an important part in developing new uses for old products and making a market for new products, yet the development of new products has been comparatively limited owing to failure to start with fundamentals.

That contact with the synthetic fiber industry should have broadened the vision of textile manufacturers is not surprising, because it has introduced many new textile concepts, has forced the adaptation of old machines to comparatively new uses, and has forced the whole industry for the first time in nearly a century to study and develop the processing and finishing of new basic raw materials. This in itself has tended to key up the whole textile operating force to a point where they have been forced to relinquish the idea that old standards of processing were final, and either consciously or unconsciously the keenest minds of the industry have reached the point where, as previously noted, there is less certainty than ever before as to the accuracy of existing knowledge of textile fibers and their processing.

A doubtful and open mind is the most favorable approach to fundamental research, and it requires only a casual survey of recent technical developments in prac-

tically every branch of the textile industry to demonstrate that interest is keen in innovations which give promise of cutting cost, increasing production and improving quality, and such interest is only a step removed from the impulse to delve into fundamentals. In fundamental technical research by empirical, or try-and-reject methods, the textile industry has progressed farther than most other much younger industries, yet its unfathomed depths of knowledge are deep and it is through such delving that more effective control of manufacturing is to be attained.

The Wool Price Trend

THE world wool industry is much more interested in information that will allow it to decide when and at what price wool may be considered a safe or attractive purchase, than it is in theories tending to explain the decline that has carried merino wools in foreign markets to prices approximating closely to those known as the pre-war average. Yet it is possible that a fuller understanding of the basic causes of the decline will contain the answer to queries as to the probable future price trend.

Leading economists have contended ever since the World War that the long-time price trend of commodities would be downward, and while few have attempted to predict the duration of the trend, the majority have agreed that its limit in most cases would be the pre-war price level. Prices of average merino combing wools at the recent Australian auctions have approximated closely to the pre-war, or 1912-13, prices for similar wools. Merino wools are thus one of the first great basic commodities to fulfill the predictions of economists referred to.

Foreign prices of merino wools have slumped to the trough of this economic cycle thus quickly because there has been uncontrolled play of the old economic law of supply and demand. The decline of similar wools in domestic markets and of similar domestic wools has been less severe because of two basic reasons: First, because the trade has had the advantage of reasonably accurate statistics of production and consumption; and, second, because an effective tariff has segregated this market from the direct effect of foreign conditions. These factors have resulted in a better balance of production and consumption, and to that extent have interfered with the free play of the economic law of supply and demand.

If there had been during the last ten, or even five, years statistics of foreign wool production and consumption comparable in reasonable accuracy to those compiled by our Government it is hardly conceivable that there could have been so radical an increase in the production of merino wools, or that merchants, topmakers and spinners should have suffered such large inventory losses. Reasonably accurate official statistics of production and consumption could not have prevented a long-time downward trend of wool prices, but might have spread it over a longer time and provided ample warning of the trend. If we are correct in assuming that lack of adequate foreign statistics of wool production and consumption has been an important factor in causing and hastening the present slump in merino wool values, then it should prove effective in eliminating opposition to the efforts of the International Wool Federation and International Institute of Agriculture at Rome to secure trade and government cooperation in the collation of such statistics.

Lacking reasonably accurate official statistics of production, consumption and stocks abroad it is hardly to be expected that there can be a sudden recovery in merino wool prices even though a large part of the trade may feel convinced that the price pendulum has swung too low. To that extent prices of merino wools in domestic markets will be affected, although it may be safe to anticipate that the domestic margin above foreign wool prices will be something more than landing cost plus duty.

Thwart the Labor Radicals

BECAUSE of the wide publicity given to the New Bedford cotton mill strike last year and to the recent strikes in southern mills a horde of labor radicals both organized and unorganized has been attracted to the industry from all over the country and is awaiting the slightest opportunity to foment labor trouble. The South has no monopoly of these trouble makers, for at Ludlow and Easthampton, Mass., within the last two weeks the same group of radicals, claiming affiliation with the National Union of Textile Workers, sought to take advantage of temporary local strikes and were repulsed by loyal operatives in each instance.

These radicals, like vultures, feed upon the carrion resulting from friction in employe relations, and the most certain method of thwarting them is to prevent internal labor friction. Manufacturers who have been forced in recent years by keen competition to concentrate attention upon more efficient production and merchandising will do well to make a careful survey of their operating force to see that their employes are as contented as conditions will allow. In few mills can there justly be complaint regarding working and living conditions or wage rates, but unfortunately intermittent employment continues in many mills and is likely to continue as long as the consuming demand fails to balance productive capacity of the industry. This will provide an opening for the labor vultures unless frankly explained to workers, and unless there is some just method of allocating the employment available.

Anything under present disturbed labor conditions that will assure employes that their welfare is a chief concern of mill officials and operating heads, will go far toward keeping employes satisfied and eliminating opportunities for labor radicals. The holiday season is approaching, and at Thanksgiving, Christmas and New Year's, there will be opportunities for mill officials to demonstrate that the welfare and contentment of their employes is a very personal matter.

Annual Meeting of Cotton Textile Institute

Walker D. Hines to Retire; Urges George A. Sloan as Successor

Members Vote Against Engaging in Political Activities

ENCOURAGING progress which the cotton textile industry has made during the last year was reviewed by Walker D. Hines, president of The Cotton-Textile Institute, Inc., at the institute's annual meeting at the Biltmore Hotel, Oct. 16. More than 125 manufacturers representing over 150 mills in the principal cotton manufacturing sections of the country attended the meeting.

A proposal to amend the by-laws of the Institute by repealing the prohibition to engage in legislative and political activities was defeated by a vote of 450 to 145. Advocates of this amendment had in view the possibility that it would enable the Institute to sponsor legislation affecting night work in mills. This vote reaffirms the stand of the Institute in that it will not engage in political activity. It cannot be taken wholy as an indication of the feeling regarding night running.

Mr. Hines to Retire Dec. 31

At the meeting of the Board of Directors of the Cotton-Textile Institute, Inc., following the Institute's annual meeting, President Hines, who was reelected by the board, stated that the three-year period for which he had undertaken the work of the presidency would end in December, and that if the Institute felt it needed his services after that time it would be necessary to put the matter on a new basis which would not constitute such a serious draft on his time and strength. He stated that it would therefore be his purpose to recommend to the newly-elected executive committee at the appropriate time that the organization be changed so that he could, if his further services were desired, be made chairman of the board and that George A. Sloan, the present secretary, be made president of the Institute.

Mr. Hines indicated that he had explained this matter in this way to the executive officers of the Institute over a year ago, and had also mentioned the matter to the members of the executive committee from time to time during the last year. Mr. Hines stated that his interest and confidence in the Institute were greater than ever and that notwithstanding the proposed change he would expect to give a great deal of attention to the Institute's work.

Walker D. Hines, President, The Cotton-Textile Institute

For some years Mr. Hines has been a member of the law firm of Hines, Rearick, Dorr & Travis, and following the meeting he indicated that that relationship would continue after his proposed change in his relationship to the Institute.

G. A. Sloan Slated for President

After the adjournment of the meeting Mr. Hines said:

"Mr. Sloan, who has been secretary of the Institute from its organization, and who, during all that time, has been the principal assistant to the president, is thoroughly familiar with the activities and policies of the Institute. He knows the fundamental economic questions which the industry is seeking to settle in a constructive way. He has had a large part in conducting and directing the Institute's work during all that time. His wide acquaintance among mill executives and trade representatives and their great confidence in him make him exceptionally fitted for the presidency.

Mr. Sloan was born in Nashville, Tenn., and was graduated from Vanderbilt University with the degree of L.L.B. in 1915. He came to New York in 1922 to become secretary of the Copper & Brass Research Association, which had been organized to promote the progress and welfare of the copper industry which was then facing a demoralized condition due to post-war difficulties. In October, 1926, he resigned from this position to become the first secretary of The Cotton-Textile Institute, Inc.

Whitman Amendment Defeated

The proposed amendment to the by-laws of The Cotton-Textile Institute, permitting the Institute to deal in legislative matters had aroused considerable interest in the trade early in the week. The resolution covering this matter was offered by Eben Whitman of the Wm. Whitman Co., and, prior to the vote on his resolution, Mr. Whitman made a brief address. He pointed out that over-production has been the chief retarding factor in the industry and that over-production was to his mind the result of night operation in certain sections of the industry. He argued that this night operation was due to the absence of laws in these sections prohibiting the employment of women and minors at night.

"If our industry and our Institute are to survive," he said, "we must of necessity solve the economic problems brought about by over-production. This can only be accomplished by eliminating the condition that is the cause of over-production."

The vote of 450 against to 145 in favor of the Whitman resolution ends the matter of legislation so far as the Institute directly is concerned. The impression in the trade is that the vote expresses desire of members that the Institute remain out of legislative affairs, rather than any real opposition to the abolition of night work. It is believed that the proponents of this principle will continue to carry on their fight through other channels.

Sees Improvement

Very pronounced improvement in the opportunities for the industry to deal with its problems in an effective way was cited by Mr. Hines in his review of his two and a half years' presidency in the Institute. Mr. Hines

stated that while the industry's fundamental difficulties are numerous and complex, an optimistic view of the present conditions is warranted by the increased attention which mills are giving to these important questions. Progress that has already been made in correcting the tendency to overproduce indicates that still more can and must be accomplished as the mills more and more adjust their production to demand and maintain a proper regard for costs of production.

"I think the Institute is wonderfully well established at the present time," said Mr. Hines. "It has made most encouraging progress in the last few months and I think it deserves the continuing confidence and enthusiastic support of the membership."

Directors Elected

Twenty-six directors were elected at the annual meeting of members of The Cotton-Textile Institute, Inc. Twenty-five were chosen for a term of three years, and one was elected for two years to fill a vacancy. Directors elected for three years were:

Robert Amory, Boston, Mfg. Co., Boston, Mass.; Howard Baetjer, Mt. Vernon-Woodberry Mills, Inc., Baltimore, Md.; Harry L. Bailey, West Point Mfg. Co., New York City; Bertram H. Borden, American Printing Co., New York City; Charles F. Broughton, Wamsutta Mills, New Bedford, Mass.; Frank L. Carpenter, Davis Mills, Fall River, Mass.; Alfred E. Colby, Pacific Mills, Boston, Mass.; Julius W. Cone, Proximity Mfg. Co., Greensboro, N. C.; Stuart W. Cramer, Cramerton Mills, Cramerton, N. C.; George Delano, Bourne Mills, Fall River, Mass.; W. A. Erwin, Erwin Cotton Mills, West Durham, N. C.; J. C. Evins, Clifton Mfg. Co., Clifton, S. C.; H. R. Fitzgerald, Riverside & Dan River Cotton Mills, Danville, Va.; B. E. Geer, Judson Mills, Greenville, S. C.; B. B. Gossett, Chadwick-Hoskins Co., Charlotte, N. C.; George S. Harris, Exposition Cotton Mills, Atlanta, Ga.; Jno. A. Law, Saxon Mills, Spartanburg, S. C.; Russell H. Leonard, Pepperell Mfg. Co., Boston, Mass.; Henry F. Lippitt, Manville Jenckes Co., Providence, R. I.; Edward Lovering, Pepperell Mfg. Co., Boston, Mass.; G. H. Milliken, Dallas Mfg. Co., New York City; A. R. Pierce, Pierce Mfg. Corp., New Bedford, Mass.; J. J. Scott, Scottdale Mills, Scottdale, Ga.; John Skinner, Harmony Mills, Cohoes, New York; George E. Spofford, Androscoggin Mills, Augusta, Maine.

W. S. Nicholson of Union-Buffalo Mills Co., Union, S. C., was elected for two years to fill the vacancy caused by the resignation of E. A. Smyth of Balfour, N. C.

George A. Sloan, Secretary, The Cotton-Textile Institute

Officers Elected

The following officers of The Cotton-Textile Institute, Inc., were elected at the meeting of the board of directors:

President, Walker D. Hines, of New York City; vice-presidents, Henry F. Lippitt, of Providence, R. I.; T. M. Marchant, of Greenville, S. C.; treasurer, Gerrish H. Milliken, of New York City; secretary, George A. Sloan.

New members of the Executive Committee include Harry L. Bailey of New York City, J. Whitney Bowen of Fall River, Mass., R. H. I. Goddard of Providence, R. I., and G. T. Thompson of Adams, Mass.

Other members of this committee who were re-elected are Robert Amory, Boston, Mass.; Bertram H. Borden of New York City, Charles F. Broughton of New Bedford, Mass., A. E. Colby of Boston, Mass., Stuart W. Cramer of Cramerton, N. C., H. R. Fitzgerald of Danville, Va., B. B. Gossett of Charlotte, N. C., George S. Harris, of Atlanta, Ga., John A. Law of Spartanburg, S. C., Russell H. Leonard of Boston, Mass., and Gerrish H. Milliken of New York City. Mr. Hines, Senator Lippitt and Mr. Marchant are members ex-officio.

Address of President Hines

IN SOME respects my annual report will be a statement of my conclusions based on nearly three years of activity—I might say two and a half years of real activity—because the Institute was not well organized so as to get a good start until about six months after Oct. 20, 1926.

I feel that I am entitled to congratulate the membership upon the real progress which has been made in the Institute work. It takes a long time to get these things to the point where they do show encouraging results. We have an enormous membership, an enormous complexity of conditions, and nothing can be worked out speedily where it can show results in any short length of time, but after the activities for the last two years and a half, I can say to you that we are seeing a good deal of daylight—more in some directions than in others—but a very pronounced improvement in the opportunities for the industry to deal with its problems in an effective way. I believe that many of you have yourselves realized that, but perhaps others who are in branches of the industry where the conditions have been much more difficult may not; but I think in those groups where we have accomplished the most we have found ways of promoting the interests of the industry which, by degrees, will be carried into other groups which are more difficult and as to which we have not yet been able to see the same amount of progress.

In the first talk I made after I became president of the Institute, which was at Atlantic City in May, 1927, and in my annual talks in the fall of that year and in the fall of last year, I struck the note that a fundamental difficulty with the industry was over-production. I want to strike that note again.

When we compare the actual production with the actual demand, we find that, generally speaking, over-production is not very great, but it is very clear that a comparatively small over-production may have a most demoralizing effect on the whole merchandising

Thomas W. Marchant, Elected Vice-President, The Cotton-Textile Institute

Henry F. Lippitt, Elected Vice-President, The Cotton-Textile Institute

situation. Because the over-production is comparatively small, it ought to be comparatively easy to remedy, and I believe as the industry learns more and more about the problem, and gets more and more in the habit of studying it attentively, the correction of this over-production is going to be an easier matter. I think distinct progress has been made in that way, and I have every belief that that progress will be continued.

My observation has been that when there is the best balance in a particular branch of the industry between production and demand, we see the best merchandising conditions, and I think the industry's appreciation of that more and more is helping to make it practicable to keep production in line with demand and avoid that over-production which is injurious not only to the industry itself but to its customers, and which, by reason of the depression it may create from time to time, is injurious to the public in general.

I have found in discussion with many mill executives and their representatives a feeling that you can't afford to keep production in line with demand because it increases your costs of production, and that the only way to offset that is to see that here are increases in prices which will take care of the increased cost in production.

I believe that that is an illogical position, but from the standpoint of psychology I have to recognize that it is a very powerful position.

I want to say that if the various mills would have the courage and the patience to keep on holding their production in line with the demand, the price situation would inevitably correct itself eventually, but the feeling of fear that it may not do so and the feeling of impatience that it is not doing so right away, has a tendency to encourage many mills to produce more than they know they ought to produce.

The fact that prices are so low that they do not cover the cost of production when the producing schedule is held in line with demand is due, as I see it, to a bad psychology on the part of the industry. There has been just a margin of over-production for such a long period that the industry seems to have gotten largely in the habit of not expecting to get prices that will cover the cost of production when production is on less than a full output, and at the same time it has to be on less than a full output if over-production is to be avoided.

I think each mill ought to study its situation and find that it owes it to itself and its stockholders to keep its stock in relation to demand and do what is necessary for that, even though it may already have figures that some general schedule of adjusting its production to its demand is a good thing, month in and year out. That is not all of the problem, because it must do whatever is necessary in addition to avoid piling stocks.

I frequently wonder if many of the mills sufficiently estimate the burden and danger of carrying excessive stocks. In the first place, you have the financial burden. If you figure the full cost of the product that you make and carry in stock, it is probably true in the case of coarse goods, that you have a carrying charge per month of ¼ to ½c. per pound on the stock that you carry and if, as frequently happens, a mill gets in a position where it is carrying a stock month after month, carrying the same goods several months, it may find that it has increased the actual cost to it of those goods of a cent or more per pound, just by carrying unnecessary stocks and that is true, even though the mill has ample assets with which to carry that, because if it is devoting its assets to carrying unnecessary stocks, it is making those assets unproductive and it could use those assets to better advantage.

Potential Over-Production

So far, I have been talking about actual over-production due to the actual conversion of raw material into goods and seeing those goods pile up and overhand the market and demoralize it. But, there is another sort of influence which is just as bad and perhaps even more insidious, and which is found in many parts of the industry and that might be called potential over-production. I am not sure that that is a very accurate description, but it suggests the idea. We may find this condition that a branch of the industry may not have large stocks on hand, but the individual may be so afraid that he is going to run out of orders and therefore have to reduce his production, that he will obtain orders at prices below cost simply for the sake of avoiding the danger of running out of orders. Now, that is what I call, for want of a better name, potential over-production, and I see strong evidence of that in various branches of the industry.

Importance of Statistics

I want to call attention at this point to the fact that my experience for the last two years and a half has convinced me that an essential part of any satisfactory study of the relationship of production to demand is the development of appropriate statistics for that purpose. Over and over again, I have seen mill men conferring to consider what is indicated by the situation where they find that it is very unfavorable from a merchandising standpoint, and every time that comes up, I find that the first thing they want to know are the facts and I find that in that condition, frequently a mill representative who is violently opposed to statistics, feels compelled, when he wants to put his mind on a particular situation, to co-operate with the other mills in getting statistics and I don't see how this can be effectively approached from any standpoint, except by getting statistics. Of course, getting the statistics simply is a start. It is the intelligent use of the statistics that counts, but you cannot use the statistics intelligently until you have them, and you cannot carry forward the education as to what is an intelligent use of statistics until you have got them.

So, the Institute has steadily advocated the obtaining of adequate statistics on the production, stocks, unfilled orders. We frequently encounter the argument that if you get up statistics, the buyer will know about them and then you are worse off than you were before, but I believe that if you don't have statistics, the buyer has some uncanny method of knowing anyhow that your situation is bad and acting accordingly and that, without your statistics, the buyer knows more than the mill man and with the statistics, the mill man has a better chance of knowing as much as the buyer and very little prospect of letting the buyer have any more than he can, either find out or guess without the statistics. It is also true that often, without statistics, the buyer perhaps, from the obvious example on the part of the mills for orders, exaggerates the situation and thinks it is worse than it really is, and if the mills would get up statistics, they would find that the situation was not nearly as bad as they are led to believe.

Work on Costs

We are making analyses week by week of the costs of production in various important branches of the industry, these being based on what we believe are fairly suggestive composite costs, although we realize that there is a marked variation in the costs between the different mills. We think, if we furnish mills a composite cost, it is at least suggestive to them and is helpful to them in making a comparison of their own costs with the composite figure and I think it stimulates greater interest in cost work, and more exact rate work.

In addition to making analyses of that sort and furnishing them from time to time with the mills, we have started in the last few months upon a definite program of field work. We have a field representative, Mr. Sherman, who devotes himself to the fine goods mills. We have Mr. Howell, who is devoting himself to carded yarn mills, discussing with them their cost status, developing their interest in costs, making suggestions where he can and encouraging them to take a greater interest and to show how serious this situation is, and how much this work is needed. Mr. Howell, in recent months has visited 110 carded yarn mills. He has found among those mills that good, or at least fair, cost systems had heretofore been installed by 10.7%, that other mills, perhaps largely in response to our attention to the matter, were either just installing or were planning to install good cost systems to the extent of a percentage of 11.7. That there were mills amounting to 7.7% of the total which were on only one number which therefore had had practically no cost problem (since they could take their total operating cost and compare it with their total output and get an accurate figure as to the cost per pound). These did not need a cost system to distinguish the cost of one number from another, since

(Continued on page 93)

Hoover Greeting Opens

Second International Raw Silk Conference

■

Silk Manufacturers and Technicians From All Lands Attend Three-Week Conclave

Austin Cheney, Who Presided at Conference

REPRESENTATIVES of the United States and six foreign countries at the Hotel Astor in New York on Oct. 15, opened the second International Technical Raw Silk Conference, at which they purpose to effect the adoption of international standards for grading raw silk.

These meetings, which will continue through Nov. 8 are a continuation of the work which was begun at the First International Technical Raw Silk Conference last year in Yokohama and are being participated in by delegates of the silk industries of the United States, Japan, China, Great Britain, France, Italy and Canada. Their importance, not only to the United States but to the other countries of the world as well, was recognized by President Herbert Hoover in the following message which was read at the opening session:

"Please present my cordial greetings to the delegates to the Second International Raw Silk Conference and my best wishes for a fruitful consideration of the problems of the very important commodity that is basic to such a large group of American industries."

J. A. Mack of the Bureau of Foreign and Domestic Commerce is covering the meetings for the government as a guest of the conference.

The first two days of the conference, Tuesday and Wednesday, were given over to work preliminary to the real object of the meetings. Tuesday was devoted almost entirely to the introduction of the delegates and the promotion of friendly relationships among them. On Wednesday the methods of the proceedings were outlined. The scope and general plan of the conference was given by Austin Cheney, of Cheney Bros., vice-chairman of the raw silk classification committee of the Silk Association of America, the program of the meetings was explained and the rules and regulations governing proceedings were presented.

Sub-Committees Formed

The first four afternoons were used for perfecting the organization of the sub-committees and deciding the work which is to be accomplished by them

The first of the actual technical discussions was held Thursday morning when "sampling," the first step in the testing of raw silk, was discussed by representatives of the American and Japanese delegations. Sampling was also the topic of Friday's meeting and on Saturday demonstrations were given in the laboratories of the U. S. Testing Co. at Hoboken.

From sampling, the discussion is scheduled to proceed through the winding and sizing tests, sizing and size deviation, tenacity and elongation tests, the evenness tests, seriplane tests, cleanness and neatness, to the special tests. These latter discusions will be participated in by repreentatives of the American, Italian and Japanese delegation and will include papers on the cohesion and the "A" and "B" tests.

It was expected that a preliminary outline of changes to be proposed in grading standards would be presented early in the conference as a basis of discussion. The summation of the conference work will take place in the closing week.

Powers of Delegates

Attention was called in the opening session to the fact that none of the delegates are empowered to enter into any agreement binding to the industries of their countries. The conference proceeded on the theory that the meetings will be useful in arriving at a middle ground of understanding upon which an international grading standard may be based when sufficient work has been done to make this practical from the viewpoints of both the producing and consuming elements of the industry.

H. Schniewind, Jr., Who Welcomed Delegates

This fact was brought out early in the address of welcome by President Henry Schniewind, Jr., of the Silk Association of America under the auspices of which organization the conference is being held. The same point was referred to again by Dr. Tatushiro Kagayama, chairman of the Japanese delegation in the address which he delivered on the belief of his countrymen at the first day's meeting.

Understanding Sought

A wish to reach a basis of understanding was expressed by both of these introductory speakers and the existence of two essential views was acknowledged by Dr. Kagayama in the following terms:

"We desire to call your special attention to the fact that our methods of raw silk testing and classification were not adopted merely from the producer's point of view, but a great deal of thought and undivided consideration was duly given to the requirements of silk manufacturers. We assure you that

our utmost attention was particularly given to realize accuracy in testing, and impartiality and rationality in classification."

The delegates of the various countries participating in the conference were recognized and introduced at the opening session. A letter from Frank Farrel, president of the Silk Association of Great Britain and Canada was read, the writer expressing regret that he was unable to attend the opening session of the conference, but saying that he would be present later.

Allan Stewart, vice-president of the Raw Silk Association of Canada, spoke for his organization and announced that P. R. Dawson, president of his organization, would be present later.

H. L. Hsieh, manager of the Wing Tai Silk Filature and chairman of the Wusih Steam Filatures Association, introduced the members of his group, An Lee, of the Raw Silk Department of the Bureau of Testing and Inspection of Commercial Commodities of Shanghai, and Z. Y. Wang, associate head of the Raw Silk Testing department of the same bureau.

Emanuele Grazzi, Consul General of Italy, chairman of the Italian delegation, introduced Chev. Gino Bonazzi, Carlo Maria Zanotti, Gino Criani, Chev. Luigi Berizzi, of New York, Count Alfonso Facchetti-Guiglia, Paolino Gerli, of New York, and Count Alfonso P. Villa, announcing the appointment of the latter four as the representatives of the Italian Silk Association. Alberto C. Bonaschi, secretary of the Italian Chamber of Commerce, of New York, was announced as the secretary of the Italian delegation.

A letter from the Ente Mazionale Serico Milan announcing its representation by Dr. Romolo Angelone was read later in the meeting.

Vincent Fulchron, delegate of the Union des Marchands de Soie de Lyon, spoke briefly as the representative of France.

Dr. Kagayama introduced the members of his delegation at the conclusion of his address. These are: Fumio Ariga, Nobusuke Egawa, Toshihiko Higo, Kanjiro Hirakawa, Rinzo Imai, Takeo Ito, Mantaro Matsumoto, Jiro Mayuzumi, Yutaka Mitsukochi, Motohiko Miyasaki, Namiji Oki, Sakujiro Shingu, Hosuke Takei, Masami Toyobe, Heigoro Hasegawa, Einosuke Ishii, Morinosuke Kudo, Taichi Suzuki.

Necessity for a standard measure of raw silk to enable the silk manufacturer to know more accurately whether the fiber which he purchases is the proper one for the fabric which he intends to weave was brought out by Austin Cheney, chairman of the American delegation, at the first technical session of the conference.

A standard measure for raw silk will not only prove of immeasurable benefit to the manufacturer, Mr. Cheney said, but will facilitate international transactions between buyers and sellers of raw silk which have to be carried on at a distance of thousands of miles.

Summarizing accomplishments of scientists and technical men who have been studying raw silk characteristics, Mr. Cheney stated that the present convention aims to explain to producers the difficulties of manufacturing with high speed machinery, and to listen to raw silk production problems, for the purpose of arriving at a mutual understanding between producers and manufacturers on raw silk grading and classification.

James A. Goldsmith, chairman of the executive committee of the convention, outlined agenda and rules governing the convention. Austin Cheney presided at the meeting, which was attended by the Japanese, Chinese, Italian, American, French and English delegations.

The first session was followed by a luncheon at which the toastmaster, Austin Cheney, expressed the happiness of the American industry at being able to play host to the manufacturers of silk from other countries. Mr. Cheney was also the presiding officer at the Wednesday session, at which he outlined again the five points, evenness, cleanness, strength, elongation, and size variation, on which it has been agreed that tests for standard quality may be based.

These five qualities are the basis of the work which will be done by the conference in the next four weeks.

Style Conference and Show

Novel Details of These Features of Cotton Manufacturers Convention in Boston

WHILE the list of speakers for the Wednesday afternoon (Oct. 30) session of the convention of the National Association of Cotton Manufacturers at the Copley Plaza Hotel, Boston, and of the Thursday morning (Oct. 31) session has not been completed, a complete program of the theatre party and style show at the Copley Theatre Wednesday evening, and of the style and sales promotion conference Thursday afternoon are available and demonstrate that they will be unusually novel and interesting. The Wednesday afternoon session will be presided over by Irving Southworth, agent, Pacific Mills, Lawrence, Mass., the topic being "Some Aspects of Employe Relations."

Frederick M. Feiker, chairman of President Hoover's committee appointed to study distribution of manufactured products, will lead the discussion of this topic at the meeting scheduled for Thursday morning to be presided over by Henry G. Lord. The government's plans for the taking of a census of distribution, which will be undertaken to bring out some of the problems of textile distribution, will be outlined at this session. S. R. Glassford, president of the Association of Cotton Textile Merchants of New York, will speak as the representative of the textile merchant; E. Friedmann of the R. H. Macy Co., New York City, as the representative of the retailers; Henry Lauten, vice-president of the Converters' Association for the converters, and the sales agent of an important group of mills for the manufacturers selling direct.

The Style Conference

Mrs. Katrine Hooper, who will preside at the style conference Thursday afternoon and who has charge of the style show and theatre party Wednesday evening, states that:

"The association is very fortunate in having as guest speakers for the Conference four fashion experts with widely diversified points of view. Mrs. Crete P. Hutchinson will present fashion from the magazine angle. Miss Tobé, of the Tobé Fashion Bureau, will speak on the conception of fashion carried through to a nation-wide fact. The point of view of the retail store will be given by Miss Dorothy Kelly of Filene's. Advertising and the sales promotion of fashion will be linked together by Miss Margery Wells. In addition to an informal discussion at the end of the Conference, it has been arranged to pass a box for any written questions that the audience may wish to present.

Mystery and Fashion

"To pass to a less serious but equally interesting subject—Ladies' Night has been arranged on a more informal basis than usual. The Copley Theatre, which is almost across the street from the Copley Plaza, is producing under the direction of E. E. Clive, an extraordinarily good mystery play, *The Creaking Chair*. Through the courtesy of Mr. Clive, it has been arranged to hold a National Association of Cotton Manufacturers Night for the members and their guests. The association is handling a block of tickets and plans to take care of the orders in every possible way, but the theatre is small and it will be wise to place orders as far in advance as possible.

"During the first intermission there will be a Fashion Promenade of Cotton. The costumes have been selected from the point of view of style rather than price and they have been loaned by the courtesy of the Cotton-Textile Institute. The possibilities of cotton as a talking point in fashion will make an interesting and attractive display in the intimacy of the Copley Theatre."

Wool Overseers Annual Meeting in Boston, Nov. 16

The forty-sixth annual meeting of the National Association of Woolen and Worsted Overseers will be held at the American House, Boston, Saturday, Nov. 16, at 11 a.m. The morning session will be devoted to reading of minutes, election of officers, etc. A luncheon for delegates and ladies will be held at the hotel at 2 p.m. the same day.

Wool Goods Styles for Spring...

Outstanding Merit Shown in Openings by American Mills

THE following brief survey of wool goods styles for spring 1930 is from a style bulletin prepared by Elizabeth Hallam Bohn, stylist for the women's-wear division of The Wool Institute:

The coatings, suitings, ensemble and dress materials which American mills are showing in their openings for spring 1930 are a revelation in the advances which have been made in the styling and construction of American-loomed fabrics.

To-day the line and cut of a costume must share fashion attention with the fabric. The new styles demand much of the materials which interpret them.

For coats, suits and ensembles, the new tweeds are distinguished by the beauty of the novelty yarns, which the spinners have developed; by interesting weave patterns and by striking and unusual color combinations.

Thick yarns are preferred for the heavier tweed coatings, while the lighter suitings and ensemble patterns use thinner yarns, often in multiple construction. Often the pattern interest will be subordinated almost entirely to the yarn treatment and the quality of these fine yarns lends much to the clearness of the coloring.

The nubbed treatment is an effective means of introducing color, some of the ranges being profusely sprinkled with the bright contrasting points of interest while others separate them at wide intervals. Nubbed yarns are interwoven with finer threads in striking color combinations such as, rose, gray, black and white; brown, green and white; lavender, white and yellow; blue, green and rust; such striking combinations being shown in twills, plain weaves, basket weaves, and subdued herringbones.

The effective use of a rayon mixture in some of the twill, basket and novelty weaves shown gives a lighter, slightly iridescent glint to the wool.

Novelty Coverts in Variety

Swinging radically from the soft deep tweed effects are the exceptional values offered in the spring covert ranges. The many variations which have been played on the theme of weave and texture and the unusual colors in which these popular fabrics are being loomed has lifted this classic fabric out of the staple class and given it almost a novelty appeal.

Oxford cloth and white flecked gabardine for the tailored suit, and the light weight worsteds which enter the covert class by their frosty aspect, appeal for the same reason which gave covert its high favor. At the same time they present a new fashion slant.

In the worsted coating coverts, birdseye and other mannish weaves are strongly endorsed, accenting shadow stripes, very small novelty herringbones, gabardines and broken classical effects. Satin coverts, moire coverts and shadow coverts are also shown. Another novelty effect shows a tiny pin check etched in rayon through a sheer worsted.

Velvety Woolens Carry Over

Wool velvets are outstanding in the coating groups, some of these in most attractive prices for volume sales. One light coating with a close velvety surface is streaked with white so woven that it takes on a slight bluish tinge when mixed with a deeper blue ground. A high-lighted basket weave has a velvety texture with just a suggestion of white in the weave. Another velvety woolen introduces a fine check arrangement.

Broadcloth

Broadcloth ranges appear in the coating groups and a real dress weight broadcloth is shown. One plain color cloth is decidedly new—a semi-lustrous surfaced broadcloth of excellent texture, with a tricot effect in horizontal rib-like treatment. Smooth broadcloth finishes are also shown in coatings and various types of twill weaves including one double tricot effect with quite wide spacing between.

Fleece Finished Coatings

A cloth which combines the velvety texture of a formal fabric with the mixture effect of a sport woolen may be tailored for either type of garment. The camel's hair twill weave with thick surface is accented and to meet the need for children's coatings is shown a deep pile cloth which has a smooth velvety texture despite its chinchilla-like treatment. Camel's hair cloths in both plain and fancy weaves are shown for both men's and women's sport coats and jackets. Wool pastels are promised later by one outstanding house.

Flannels will continue their staple appeal and distinction is given cheviots through basket weaves and staple twills and frosted diagonals and chevrons of a rough cheviot covert effect. Cream cheviots are loomed in pattern and weave variety which includes fanciful patterns as well as the always popular basket and basket checked weaves.

The basket weaves range from fine multiple thread manipulations to large effects for dresses and ensembles. An interesting color effect is gained in a double yarn basket weave by interlacing double yarns of a single color with double yarns of two colors—for instance—orange and brown yarn are treated as one and interwoven with beige, or blue and yellow yarns as one are laced with white.

Strictly mannish in character are two suiting ranges shown for the spring tailleur, each introducing white to form a tiny motif suggestion in the weave. The small mannish effects are important from a high style point of view; sharkskins, birdseyes, serge, narrow broken stripes, diagonals, zigzags, herringbones, twills and chevrons are shown, also more complicated designs—stitch-like effects or multiple yarn treatments or fine checks in grounds over-worked with a second design in line outline. These types are linked with the tailored suit by brown, beige, gray and oxford colorings while the more feminine versions feature subtle or bold sport colors showing a graceful breaking of the ground weaves. These are equally effective in black and the conservative shades. In dark blue, brown and black are shown suitings of the British type which have high fashion appeal. They show evenly spaced worsted yarns of alternate white and color. The men's wear fabrics hold their own and the fine unfinished saxony woolens and flannels are promised to be in favor.

For Frock and Light Ensemble

Crepes accent many textures and surface treatments for both the separate frock and the light ensemble. The tightly twisted crepe is giving place to a luxuriously soft and wooly surface, even in the light dress ranges. A soft worsted is shown with the suggestion of both a rep and a crepe. It presents a soft sheen and is suitable for the type of tailored frock usually seen in navy with lingerie touches. Another type has a crepe face but the body of a heavier fabric.

Openwork fabrics approve light lacy textures for frocks. Cheviot weaves take on new interest when they take on a semblance of crepe which takes them from the sportswear catagory where they have been placed for so long.

The uneven surface of mossy texture is favored in both patterned and monotone ranges. One especially attractive type presents regularly spaced line of raised crepe yarns against a flatter crepe surface in solid color. Another uneven surface has a crispy texture. While still another traces a small monotone check effect in the weave. Thin nubbed yarns in white are used in other types tracing either a line stripe or line plaid over a colored ground.

Colors

In the high style group of colors such shades as the following have been promised favor: A soft version of henna; a lighter shade of henna with a peach cast; orange with both the effect of yellow and rose; light slightly grayed blues; violet tones; Spanish red and rose red; rose tinted colors.

The First Patent

For an Artificial Fabric

Beginning a Treatise On the Manufacture of Artificial Lace

*By Joseph Rossman**

ABOUT thirty years ago it was proposed to manufacture lace and tulle without resorting to spinning or weaving operations. It is only recently, however, that such lace has been manufactured on a commercial basis. Artificial tulle is used chiefly for millinery. It is slightly stiffer than natural tulle and is therefore better adapted to retain its form when used in hats. It does not have to be loaded with starch as is necessary with natural tulle. Artificial tulle has the luster of rayon and has all the appearance of natural tulle.

First Artificial-Fabric Patent

The British patent No. 17,549 was granted in 1898 to Adam Millar for producing fabrics or tissues from threads or filaments formed of materials while in a liquid or plastic condition, the threads being so placed as to be in contact with each other at short distances apart, and made to adhere to each other at the points of contact. In carrying out this invention, the following are examples of methods which are applicable:

A traveling endless web of a flexible material, having a smooth and non-adhesive surface, such as the fabric known as oilcloth or wax-cloth, is employed. The web is of considerable length, say twelve yards or longer, and of suitable breadth, say one yard; and is carried by drums or rollers which rotate on their axes.

The liquid or plastic material from which the fabric is formed is contained in a reservoir or cistern situated over the web and furnished with an airtight cover, the reservoir having a nozzle regulated by a small stop-cock. The liquid material exudes from the nozzle in a fine thread-like stream and falls upon the surface of the web. The flow of the material through the nozzle is obtained by the pressure of compressed air or like means. The cistern is carried by a frame in which it has a to-and-fro motion across the web, and the web has a continuous forward movement, these movements being produced by suitable gearing.

The machine, when put in motion, forms a thread of the material contained in the cistern, which is laid upon the traveling web in the form of a zig-zag line, and covering the whole length of the web. The length of the web is so adjusted that, when the web has made one complete passage, the thread laid down on the second passage of the web shall be a little in advance or a little behind the thread previously laid down, so that the continued working of the machine produces a tissue or fabric of a pattern composed of overlapping zig-zag lines.

To Insure Adhesion

In order to insure the adhesion of the threads to each other at their points of contact, the tissue may be passed under a pressing roller, or a jet of air may be blown upon the tissue, and the air may be charged with vapor or with a liquid in the form of a fine spray, so as to cement the threads together. The fabric may be removed from the web, when the threads have become sufficiently tenacious, and completed by such subsequent treatment as may be required.

There are obviously a great variety of modifications of the method described, as, for example, in regulating the speed of the forward movement of the web so that, while the web makes a complete travel of its whole length, the cross motion of the cistern shall be about one twentieth part of an inch. In this way the thread produced is laid down in parallel lines upon the travelling web and has the appearance of the warp yarns in the looms of ordinary construction.

To make the filling yarns, the speeds of the two parts are reversed; the cistern travels across the whole width of the web during the time in which the slow movement of the web advances only one-twentieth of an inch. In this way the tissue will be formed of parallel warp threads crossed by slightly diagonal threads of filling; but if the web stands still while the cistern travels across it, and the small forward movement takes place before the return movement of the cistern begins, the tissue will appear as an open calico or plain cloth.

Another modification consists in mounting the cistern upon an axis and causing it to rotate continuously, the nozzle being placed so that the thread is laid down in circular lines. By this method a tissue is obtained of a pattern composed of intersecting or interlacing circular lines.

Using Several Cisterns

In the processes just described, there has been only one cistern and one nozzle, but it is obvious that several cisterns may be employed at one time, and that each cistern may have several nozzles, in which case a very rapid production of the fabric may be obtained, besides a great variety in the pattern of the fabric.

For example, a pattern composed of intersecting sinuous lines or ovals may be produced by two cisterns, each furnished with a number of nozzles placed at equal distances across the whole width of the tissue to be formed. The to-and-fro movement of the two cisterns may be limited to a short distance, so that the thread is laid down in sinuous or serpentine lines parallel to each other. The nozzles of the one cistern are, however, so placed that the sinuosities of the one set cut into the sinuous lines of the other and produce a pattern of intersecting ovals. This method of using more than one cistern or reservoir of liquid substance allows tissues to be made with stripes and checks of different colors by using differently colored materials in the several cisterns, and the materials contained in each cistern may also be different.

A further application of this method of producing tissues consists in covering the traveling web with a light open fabric of cotton or other material woven by the ordinary methods, and to which the threads of liquid material will adhere, the calico becoming a permanent foundation for the tissue, and being removed from the web when the tissue formed by the nozzles has been completed.

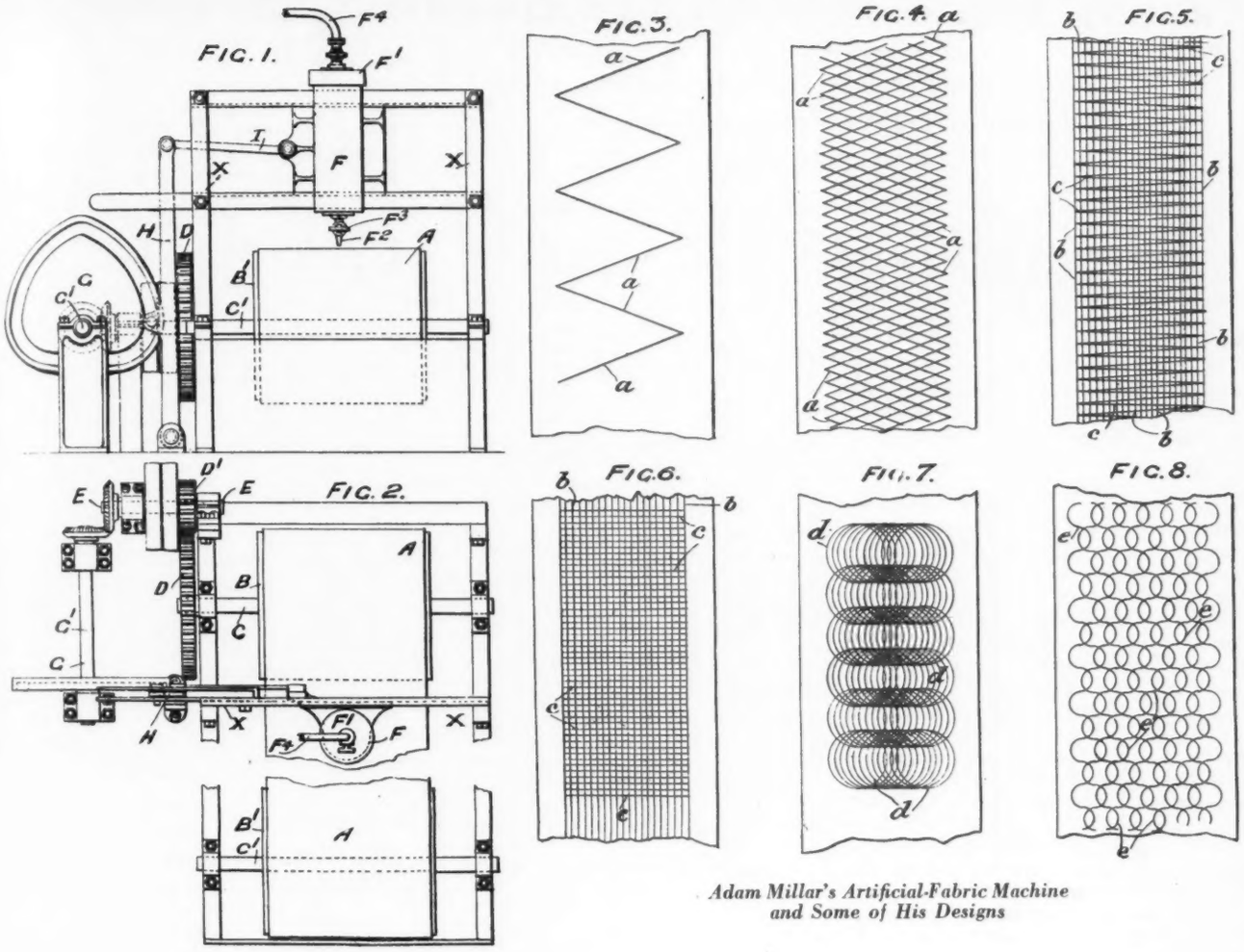
Fabrics may be produced, by the processes described, so as to be of considerable thickness, and employed as a lining for giving extra warmth to quilts and other articles; the thickness being regulated by the number of times which the traveling web passes under the thread-producing nozzles.

The Invention Illustrated

The invention is illustrated by the accompanying drawings. Fig. 1 is a front elevation; and Fib. 2, a plan of a convenient form of machine which might be employed to produce the fabrics or tissues forming the invention. Figs. 3 to 8 inclusive show six different methods of producing fabrics.

A traveling endless web *A* of a flexible material, having a smooth and non-adhesive surface, such as the fabric known as oilcloth or wax-cloth, is employed. The web *A* is of considerable length, say 12 yds. or longer, and of

*Examiner in U. S. Patent Office.



Adam Millar's Artificial-Fabric Machine and Some of His Designs

suitable breadth, say one yard, and is carried by drums or rollers B, B^1, which rotate on their axes C, C^1, one of the drums being driven by means of spur gearing D, D^1, from the pulley shaft E.

The liquid or plastic material from which the fabric is formed is contained in a reservoir or cistern F situated over the web A and furnished with an air-tight cover F^1, the reservoir having a nozzle F^2 regulated by a small stop-cock F^3. The liquid material exudes from the nozzle F^2 in a fine thread-like stream and falls upon the surface of the web A. The flow of the material through the nozzle is obtained by the pressure of compressed air or like means, contained in a reservoir and communicating by a flexible tube F^4 with the cistern F. The cistern F is carried by a frame X in which it has a to-and-fro motion across the web A and the web has a continuous forward movement. These movements are produced by suitable gearing—the former motion, by means of the cam G on the shaft G^1, the lever H actuated by the cam G and the link I; and the latter motion, by means of the gearing D, D^1, before referred to.

In cases where heat is needed to produce the necessary fluidity, the reservoir or cistern may have a hot-water jacket or casing, the heat being maintained by a gas burner attached to the frame which carries the cylinder, or by other convenient arrangement.

Dyed, Printed, or Embossed

The fabric may also be dyed and printed as one of the subsequent processes, and a crepe-like fabric may be produced by means of suitable rollers, much in the same way as is in ordinary use with other fabrics.

A pattern composed of intersecting sinuous lines e, such as shown at Fig. 8, may be produced by two cisterns, each furnished with a number of nozzles placed at equal distances across the whole width of the tissue to be formed. The to-and-fro movement of the two cisterns may be limited to a short distance so that the thread is laid down in sinuous or serpentine lines parallel to each other. The nozzles of the one cistern are, however, so placed that the sinuosities of the one set cut into the sinuous lines of the other and produce a pattern of intersecting ovals.

Stationary Reservoir

It is not necessary that the reservoir containing the liquid material should have a to-and-fro motion imparted to it, as transverse or lateral movement may be given to the traveling band instead, to obtain the same result. The nipples only may have motion imparted to them, in which case they are connected to the reservoir by means of a flexible pipe of india-rubber, or by metal pipes suitably jointed.

When narrow fabrics are required, a number of such may be produced simultaneously by one traveling web and one pair of drums by simple methods of arranging the position of the nipples so that each nipple or group of nipples has only a limited distance for the to-and-fro motion, and these nozzles or group of nozzles are so placed as to produce several separate bands or ribbons on the breadth of the traveling web.

In some cases when a foundation fabric is used it will not be necessary to form filling threads in addition to the warp threads, as the adhesion of the warp to the foundation fabric will be sufficient to keep threads in their proper position. In such a fabric, the warp threads, not being crossed by the filling threads, will show a highly lustrous surface, and at the same time the fabric will be strong and pliable.

Other methods of making artificial fabric will be discussed in later installments.

Bibb Mfg. Co., Macon, Ga. At the annual meeting of shareholders Oct. 10, bonuses totaling $138,000, were ordered to be distributed to the employes of the company, these being based on length of service, ranging from 3% for two years of service, up to 12% for more than ten years of service.

China's Textile Industry to Expand

Will Need Much New Machinery Result of Settled Political Status—

By Sih-Zung Yang

ALTHOUGH the total cotton spindlage in China remains practically the same as since shortly after the World War, definite developments have taken place. More rapid and important developments are predicted for the immediate future.

There are approximately 4 million cotton spindles in the country. About one million spindles are of American manufacture, modern, tape-driven ring frames some of them with individual motor drive: the other 3 million spindles are of British origin. Most mills operate 23 hours a day, 28 days a month. With but few exceptions, only coarse yarn, from 10s to 20s single, is produced. Therefore, the annual production of yarn and consumption of cotton are rather large, perhaps equal to those of any 8 million spindles in the U.S.A., run on shorter shifts.

Remembering that cotton fabrics make up at least 90% of the wearing material for four hundred million people of China, and that China is still one of the biggest importers of cotton goods in the world, it is little wonder that nearly all of her 4 million spindles managed to keep on turning throughout the period of civil war and in spite of it. Some of the mills located in the interior and directly in the war zones were obliged to suspend operations for months at a time because of interference by the military or labor agitators. But, on the whole, the cotton industry has emerged out of the unsettled political conditions of the last ten years in a stronger position today than ever before.

Basis of Improved Outlook

Now, it is faced with the necessity of rapid and greater expansion. Why? Firstly, the country is now unified, trade routes are once more open and shops that did not or could not buy are again in the market for cotton goods. Secondly, China has regained tariff autonomy, and the import duty on cotton yarn and piece goods has been raised since Feb. 1st. this year. The present rate is still low, being from 7½% to 10% of market value but this is only the beginning of a protective policy designed to encourage the cotton spinning and manufacturing industries. The future prospects for these industries are very bright indeed. This development, which is bound to take place within the next five years, may mean much to American cotton producers and machinery manufacturers. The staple of the average China cotton is not suitable for yarns much finer than 20s, yet the tendency of any new development has been toward finer yarns. It may be safely predicted that future mill construction in China will be largely for finer yarns, 30s, 42s and 60s. In time, China will become one of the best buyers of American cotton.

Wool Industries

China supplies a large part of the world's requirements of carpet wool. It is therefore natural that the first woolen mills to be erected should utilize this material and for the making of carpet yarn. Little wool is produced suitable for clothing, which fact limits the progress in woolen manufacturing along other lines than carpets. However, enormous quantities of woolen fabrics and yarn are being imported each year, mostly from England and Europe, little from the U. S. There are some 30 sets of wool cards in China, but no worsted spinning so far.

Silk and Rayon

Of interest to American users of Chinese silk is the fact that Chinese producers are now eager to improve the quality of reeling If the splendid cooperation between them is kept up there is no reason why China cannot supply exactly what is wanted in quality and quantity. It is, however, not generally known that China is developing very fast in her own silk weaving industry for domestic consumption. The mills are beginning to use modern looms and throwing machinery. They demand better silk also. Formerly, filature silk was exclusively for export and what was known as "native reel" for domestic weavers. Today, many mills are using filatures. This will have a further stimulating effect on the production of the latter.

The consumption of rayon has increased by leaps and bounds. The estimated importation during 1928 would be about 12 million pounds. The bulk of it comes from Italy, with Germany and perhaps England next in line as suppliers. A very popular number is 150 denier, quality C and B. There is no rayon manufacturing so far.

Hosiery and underwear mills had a prosperous year in 1928. Much new equipment was purchased; practically all imported from the U.S.A. The short skirt has invaded China. Stockings of silk and rayon became the staple production of many mills. The annual production of hosiery of all kinds is estimated at 15 million dozen pair.

TEXTILE CALENDAR

International Raw Silk Technical Conference, Hotel Astor, New York, Oct. 15 to Nov. 8, 1929.

Philadelphia Textile Manufacturers Association, Annual Meeting, Manufacturers Club, Philadelphia, Oct. 24, 1929.

Texas Textile Association, Semi Annual Meeting, Jefferson Hotel. Dallas, Texas, Oct. 25-26, 1929.

Piedmont Section of Textile Chemists and Colorists and Dyers' Finishers,' Bleachers' and Mercerizers' Division of Southern Textile Association, Joint Meeting, Charlotte, N. C., Oct. 26, 1929.

Western District of the Knitted Outerwear Manufacturers' Association, Annual Meeting, Milwaukee, Wis., Oct. 29, 1929.

National Association of Cotton Manufacturers, Annual Convention, Copley Plaza Hotel, Boston, Oct. 30-31, 1929.

Southern Textile Association, Semi-Annual Meeting, Franklin Hotel, Spartanburg, S. C., Nov. 1-2, 1929.

National Association of Woolen and Worsted Overseers, Annual Meeting, American House, Boston, Mass., Nov. 16, 1929.

National Power Show, Grand Central Palace, New York, Dec. 2-7, 1929.

Silk Association of America, 58th Annual Dinner, Hotel Astor, New York City, Jan. 16, 1930.

International Exposition, Textile Exhibitors Association, Mechanics Building, Boston, Mass., last week in April, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

May Make Sheetings of All-Durene Yarn

NEW YORK.—Extensive research into the possibilities of perfecting high grade sheets made wholly of Durene is the latest project approved by the Durene Association of America in its effort to widen the present market for quality yarns, it was stated Tuesday by L. R. Breslin of the New Uses Division of the organization. This activity will be inaugurated immediately, and members of the Association as well as various other interested trade factors are confident of the outcome.

No New Body Needed for Fundamental Research

A meeting of scientists associated with the textile industry was held in Providence, R. I., on Wednesday to consider the desirability of setting up an organization for pure research in textiles. Dr. W. E. Emley, chief of the Organic and Fibrous Materials Division of the Bureau of Standards, initiated the consultation. It was the conclusion of the gathering that the functions of the Textile Research Council and of the American Association of Textile Chemists and Colorists might be expanded to encourage fundamental research and consequently no new society was needed. Committee D-13 of the A.S.T.M. was meeting in Providence on Oct. 17 and 18, details of which will be reported in our next issue.

Master Mechanics *Are* Getting More Recognition *in Southern Mills*

The status of the master mechanic in southern mills has changed. In the old days he was looked upon, states the author of the accompanying article, as a sort of tinkerer who was tolerated only because he could patch up things to keep the wheels turning. Now we often find him seated at a desk, dressed neatly, clean of person, and surrounded by considerable office equipment. He is a respected executive, with a knowledge of mechanical, civil, electrical, and construction engineering; of cost accounting; of purchasing; of storeroom management; of safety engineering; and of general business practice. The author explains the reasons for this change.

By H. H. Iler

MEN WHO have watched the development of the Southern textile industry will generally agree that, in the average mill, the master mechanic has not until recently been looked upon as a very important member of the operating executive organization. This condition is rapidly passing with changed market demands and increased competition. Through investigations of manufacturing methods have been necessary for the purpose of increasing the efficiency of machinery and personnel, and the reduction of costs. Progressive manufacturers were not slow to recognize the fact that these heretofore underestimated "cogs in the wheel" were in reality factors of large value when questions of manufacturing economy arose, and we believe it is now the rule rather than the exception for the master mechanic to be prominent in conferences of operating executives.

The Old Attitude

The attitude of many of the old-line superintendents toward their master mechanics is well illustrated by an incident which occurred in a large Southern cotton mill in a town where there was little population other than the employes. The superintendent mentioned was of the type that finds it pleasant to be set apart from his fellow men in the estimation of those outside the plant. Consequently he took delight in personally conducting through the mill the occasional parties of visitors who came along. In the instance referred to, he had been requested by a fellow townsman to show his mill to visitors who came from a section where cotton mills were unkown.

The superintendent conducted the party through the plant and then, as was his custom, led them to his office, where he proceeded to deliver a lecture extolling the virtues of his organization in general and his own excellent qualities as an organizer in particular. Observing that his talk was well received, he waxed enthusiastic in description of his staff and compared himself to the commander of an army in which the overseers were leaders of divisions composed of the foot soldiery of operatives. The foot soldiery, he explained, were divided into units under the direction of section-men lieutenants, who in turn were subject to orders from second-hand captains.

One of his listeners noticed that he did not include the master mechanic in naming the various overseers as division commanders, and was moved by curiosity to inquire if he really meant to leave him out. The questioner was enlightened with the statement that the master mechanic was there to fix things that were broken, and had no part in actual manufacturing, therefore was not a factor for consideration like the overseers of other departments.

Such superintendents are of another day and have in large part faded from the picture of cotton manufacturing as now carried on in the South. Their places have been filled by men who caught the vision of efficiency quickly and then lost no time in applying modern principles. It is not strange, therefore, that we now find in the master mechanic's office of the modern mill, not a man in overalls, untidy in dress and unkept of person, but a man who stamps himself upon the mind as being a real and capable force in the management and operation of a great plant.

Executive Replaces Tinkerer

Having had a master mechanic pictured to us in the old days as a sort of tinkerer who was tolerated in the organization only because he could patch up things to keep the wheels turning, we are rather surprised to find that this man we are calling upon in his sphere of activity is dressed neatly, is clean of person, and is surrounded with office equipment we did not expect to see outside of the mill's general office. This man, whose general air is so much at variance with what we had expected, courteously shows us over his machine shop and power plant, explains details in a simple manner, and satisfies our curiosity about his office equipment. He explains that his department is a clearing house for all sorts of problems arising in all departments and, without a system of record keeping and cost accounting, he could hardly be in position to give the assistance he is expected to give on questions of operating and maintenance costs that frequently arise.

To spend a day or so with this "mechanic" is to be amazed at the fund of information he possesses, not only

(Continued on page 66)

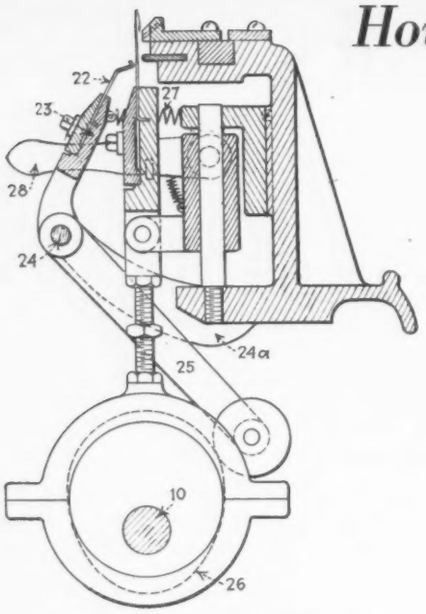


Fig. 157. High-Speed Design with Oscillating Knock-Over Bits

How Suitable YARN TENSION *Can Be Provided* in Warp-Knitting Machinery

. . . and Description of Vibrationless High-Speed Machine

*By M. C. Miller, M.E.**

TO SHOW the further possibilities of the construction illustrated in Fig. 156 on page 49 of the Aug. 24 issue, Fig. 157 has been prepared. This shows a differently arranged but very similar construction which should have considerable merit over the first.

In Fig. 157 it will be noted that the up-and-down needle-movement mechanism has been retained; as well as the general outline of the machine, but the knock-overs and web holders 14 have been altered in shape and caused to move in and out. This movement has been accomplished by mounting these knock-over bits *22* in the bar 23, which is fulcrumed on the shaft 24. This shaft is carried by brackets *24a*, which form part of the machine frame. The shaft 24 is equipped with one or more roller levers *25* which ride against the cam *26*. This cam is rotated by the shaft 10. A spring or springs *27* hold this roller or rollers against the cam and cause the bits *22* to move in the direction toward the press and away from the needle beards, as when the needles are drawing the new loops toward the knock-overs.

Vibrationless High Speed

I consider this method of operating the knock-over bits in many respects better than moving the needles in and out, for the reason that, due to the very short bit movement necessary, it would be practical to have these knock-over bits function at very high speed without vibration. To cause the needles to move in and out as well as up and down at highspeed invariably creates vibration.

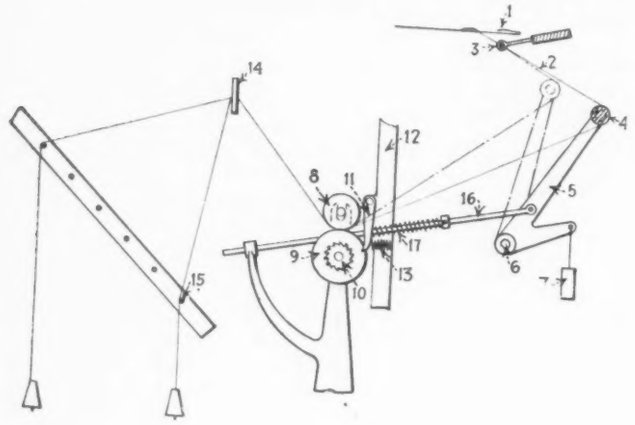
This figure also shows hand levers 28 (there is at least one at each end of the needle bed) for permitting the needles to be swung out for easy removal, pliering, or inspection.

It would of course be possible to mount the knock-over bits 14, shown in Fig. 156, so that they could move to and from the needles. This would no doubt make a desirable construction, but the removal of a knock-over bit would be more difficult than in the construction shown in Fig. 157.

Operation of Machine

I have shown in Fig. 158 the various positions of the knitting elements of the machine illustrated in Fig. 157. As the elements are shown in *a*, the needles 1 have been raised to their extreme height, and immediately thereafter the eye-bar 18—which has a yarn for each needle—will be shifted sideways in order to wrap the yarns *x* around their respective needle shanks. When the needles descend, as shown in *b*, the tips of the beards *y* will pass over their respective yarns *x*. As the beards are pressed or closed, as shown in *c*, and the needle continues to descend, the yarns *x* can be drawn into loops, as shown in *d*. The knock-over bits *y* move in and out during each cycle at the proper time to permit the new loops

*Mechanical Engineer, Cumberland Hill, R. I.; P. O. Manville, R. I., R.F.D. This article is the 23d of Mr. Miller's series, "Principles of Knit Fabric Production," a comprehensive study of the past, present, and future of knitting mechanism. All rights to the use of this treatise are reserved. Previous articles appeared Jan. 23, Mar. 27, May 15, July 24, Sept. 18, and Nov. 20, 1926; Feb. 19, Apr. 9, June 18, Aug. 20, Oct. 22, and Dec. 24, 1927; Feb. 18, June 23, Aug. 18, Oct. 20, and Dec. 22, 1928; Feb. 16, Mar. 23, Apr. 20, June 22, and Aug. 24, 1929.



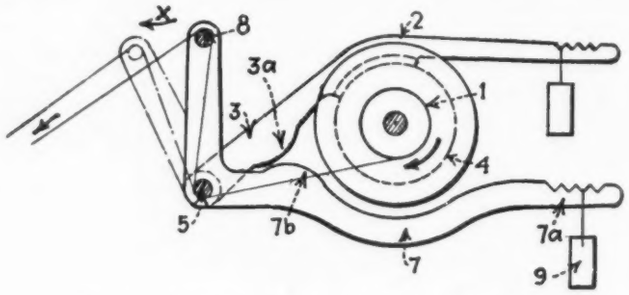


Fig. 160 (Above). Yarn Feed from Warp Roll

Fig. 159 (at Left). Yarn Feed from Individual Package

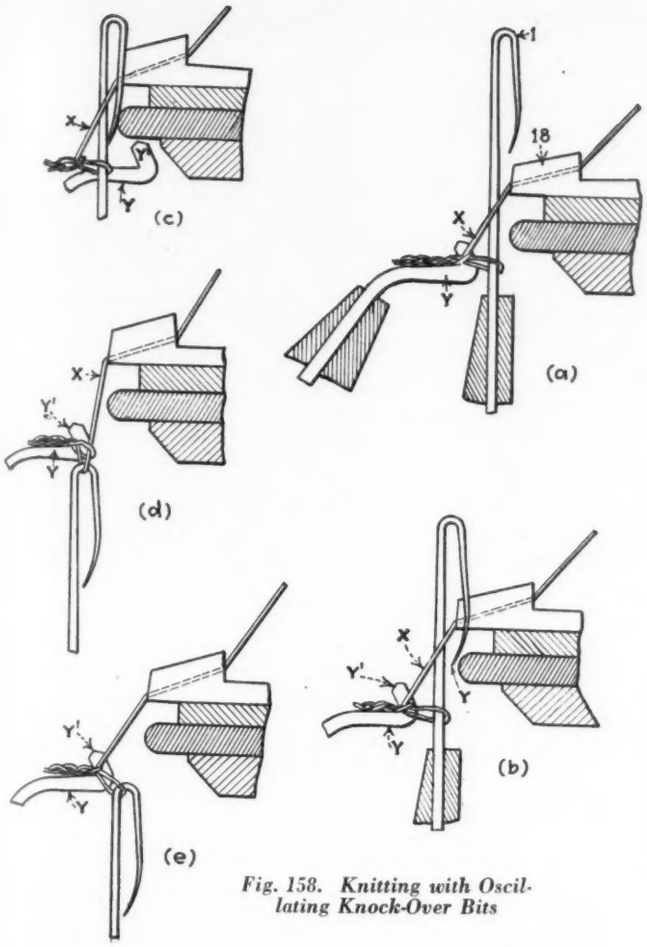


Fig. 158. Knitting with Oscillating Knock-Over Bits

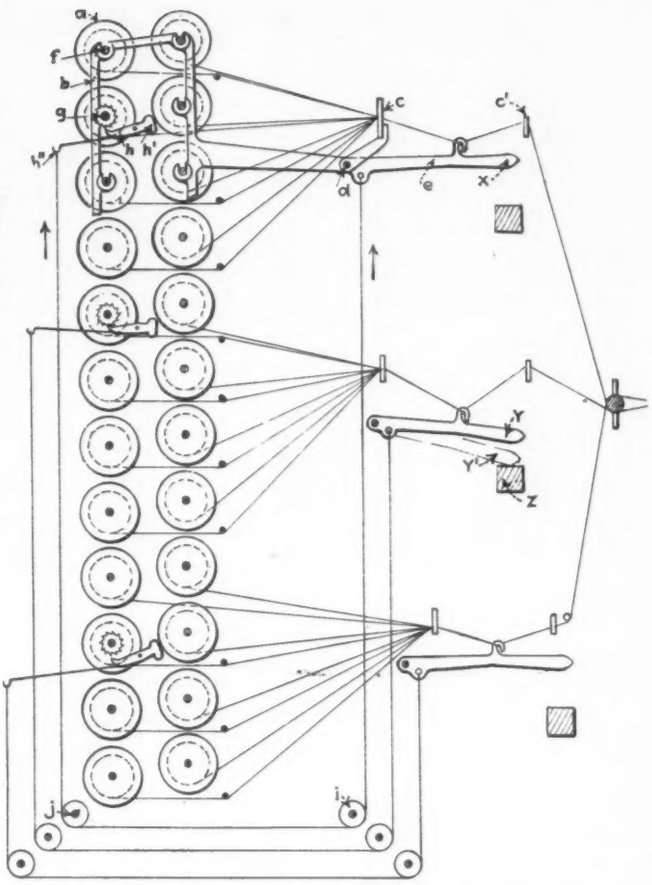


Fig. 162. Individual Tensions with Drop Leaves

to be kinked over their bits and to permit their holddown portion *y'*, shown in *e*, to hold the previously knitted course toward the back of the needles and to prevent the fabric from rising with them. The needles are now returned to their extreme height, as shown in *a*, and the cycle of movements is repeated.

There have of course been many other types of web holders and knock-over bits used in warp machines, and these other types will be discussed as particular forms of warp machines are later described.

A very important unit of all warp machines is the means for applying tension between the yarn source, the eye needles, and the knitting needles. A simple and very efficient form is the construction shown in Fig. 140 on page 38 of the March 23 issue. This construction, however, can only be used when warp threads are carried on a single package or roll.

Individual Yarn Packages

It is often desirable, however, to be able to use a system of individual yarn packages; that is, use one package (bobbin, spool, or cone) for each yarn being knitted. By so doing, the delay and cost of making up beams are eliminated.

A simple construction to use in such cases is shown in Fig. 159. The needles 1 have the yarn 2 laid around their shanks by the eye needles 3. Tension is given these threads by a take-up roller 4, which is carried by the levers 5 fulcruming on the shaft 6 and counterweighted by the weights 7. The threads 2 pass around the roller 4 and between the rollers 8 and 9. One of these rollers is usually rough or in some cases sanded, the degree of roughness depending upon the nature of the yarn. The roller 9 is equipped with ratchet teeth 10 and can be made to rotate step by step through the action of the pawl 11, which is hinged to the slide 12. This slide is caused to move up and down by suitable connection with some driven part of the machine.

A tension spring 13 normally holds the pawl 11 out of ratchet-tooth engagement. The roller 8 is mounted in slotted brackets and is free to turn. Due to its weight, it effectively clamps the yarns between its under side and the top side of the roller 9. After the yarns pass between these two rollers, they are guided by the guide bar 14 and then are carried by the yarn bars 15 to their respective yarn bobbins, spools, or cones. The device is further equipped with the rod 16 and the compression spring 17. The rod is free to move endwise as the take-up roller 4 moves toward or away from the needles.

Operation of Feed

In operation the device functions as follows: The eye-needles move up and down between the knitting needles and also move endwise to lay their yarns over the shanks of the needles in the well-known manner. The needles draw these yarns into loops. This operation calls for more yarn to be supplied to the needles and therefore causes the take-up roller 4 to move toward the needles, because the yarns are clamped between the rollers 8 and 9. As the take-up roller reaches approximately the position shown in dotted lines, the rod 16 with its spring 17 is moved toward pawl 11. Due to the fact that the spring 17 is considerably heavier than the pawl spring 13, this movement of the rod 16 forces the pawl 11 into engagement with the teeth of the ratchet 10. As this pawl is periodically moving up and down, it causes a partial rotation of the roll 9. Due to the frictional contact between the rolls 8 and 9, the roll 8 moves in unison with the roll 9, and therefore yarn is delivered in the direction toward the needles.

This permits the take-up roller 4 to move in a direction away from the needles, causing spring 17 to release the pawl 11 from engagement with the ratchet, and in this manner stop the motion of the rollers 8 and 9. There is a constant, gradual movement of the take-up roller 4 toward the needles as yarn is being used, with a more or less sudden movement of this roller away from the needles as the friction rolls 8 and 9 deliver yarn. The movement away from the needles is usually timed to occur at the moment the needles are drawing the yarn into loops, so as not

to affect the tension unduly during the laying of the yarns.

Feed from Warp Roll

There are of course many other constructions that have been used. Another form is shown in Fig. 160. The warp roll, which is shown at 1, is normally held from rotating by the brake shoe 2, which is formed on the lever 3. The brake drum 4 forms part of the warp roll. This lever 3 is fulcrumed on the shaft 5, and is counterweighted at its other end. As long as nothing raises this lever 3 the warp roll 1 cannot turn and therefore cannot give yarn in the direction shown by the arrow. In order, however, that the machine can have yarn fed to it, the shaft 5 is further equipped with levers 7, which are equipped with the yarn rod 8, over which the yarns pass from the warp roll after going under the shaft 5. The other end 7*a* of these levers 7 are weighted by the counterweight 9.

Both the levers 7 and 3 are equipped with an extension 7*b* and 3*a* respectively. As yarn is taken in the direction of the arrow (no yarn can be taken directly from the warp roll 1 in the setting shown) the yarn rod 8 is caused to move in the direction of the arrow *x* until the two extensions 7*b* and 3*a* contact with each other. A continued movement of the lever in the direction of the arrow *x* causes the yarn rod 8 with its lever 7 to raise the lever 3. This releases the warp-roll brake, thereby permitting the roll to turn in the direction of the arrow. The roll consequently gives off yarn and thereby permits the yarn rod 8 to move back into the position shown in the drawing. In this manner the brake is again applied to the warp roll.

Tension for Idle Yarns

Neither of these constructions, however, are suitable for use if certain or any of the yarns of which a fabric is formed are caused at certain times to be idling; that is, if there are times when certain of the yarns are not allowed to knit. This condition exists when any form of fabric design or color work is being produced, particularly when such idling of any of the threads is over any number of courses, as noted previously in the last paragraph of my June 22 article, page 39. In using warp machines for intricate fabric or color-pattern work, it is highly desirable to feed the yarns from individual cops, bobbins, cones, or spools, as is shown in Fig. 159. In such case tensioning means must be used which permits each individual package to have its separate tension, so that the yarns whether they are used or not will have the same tension placed upon them.

The construction shown in Fig. 161 is one form of separate thread-tensioning control. Contrivance *a* is a trough-like affair having the separation pieces *b*. Into these pieces and between them are laid the spools *c*, each individual yarn going from its spool through the eye-bar *d*. As any yarn *e* is caused to move in the direction of the arrow while it is being knitted, one tendency will be for the yarn to attempt to turn its spool in the direction of the arrow and thereby unwind it. However, there is considerable resistance to this turning, due to the friction between the edges of the flanges *c'* and the portion *a'* of the trough. The real tendency, therefore, is for the spool to move up

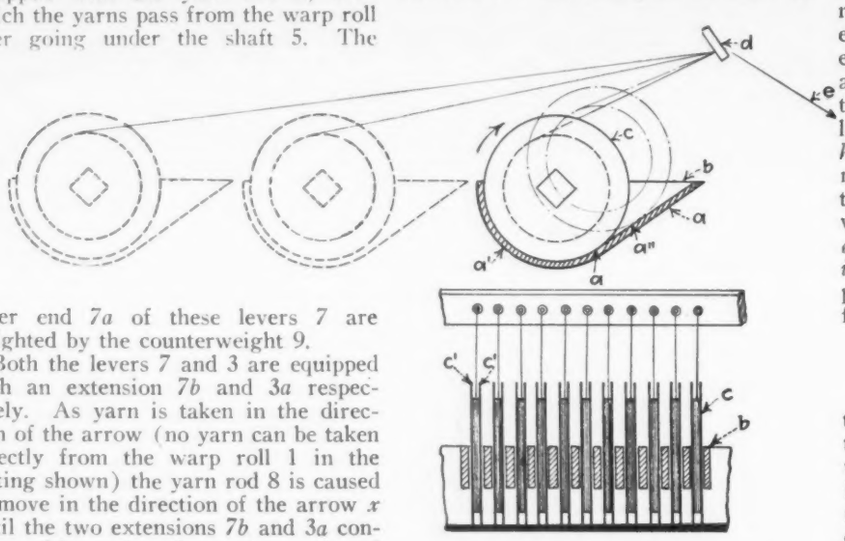


Fig. 161. Individual Thread Tensions

the incline *a''* into the position shown in dot and dash lines. In this manner the yarn is released for feeding the needle; and, as the spool cannot rest on this incline, it will roll back into the trough and again be frictioned by its flanges contacting with the surface *a'* of the trough. The resistance to the unwinding of the yarn therefore is the tension resistance brought about by the attempted turning and the climbing of the incline *a''*. It is this resistance that gives the yarn the necessary tension. In fine-index machines it would no doubt be necessary to have a number of these troughs, as shown in dotted lines.

Tension with Drop Levers

Another construction and one that has the further advantage of making possible the stopping of the machine when one or more threads break is shown in Fig. 162. (See p. 53.) Spools *a* are mounted in a rack *b*. There are a number (eight in the drawing) of these spools feeding their yarns to combs *c* and *c'*. There are any number of these groups of spools feeding to any number of combs. In the construction shown there are three groups or sets, one mounted above the other. The object of having the groups mounted one over the other is to permit the use of the device in machines having fine index without taking too much width. Increasing the width of the spool rack very much more than the width of the machine would usually be impractical from a floor space consideration and further would cause the outer spools to bring their yarns to the machine at an angle, thereby considerably increasing the friction and yarn drag.

By preference, therefore, the construction takes the form of a number of units one over the other with one or more sets of spools one behind the other. There is provided for each unit a stationary rod *d* on which are fulcrummed, free to move, the drop levers *e*. Of these there is one for each yarn.

The spools are all carried in the spool rack and have pins *f* projecting from each side. They are each further equipped with the ratchet *g*. Mounted at the end of each spool and carried by the yarn rack to fulcrum freely are the latches *h*, which are counterweighted at *h'* to cause the latch normally to attempt ratchet-tooth contact. The latch is further equipped with the extension *h''*, which is connected with its drop lever *e* by a cord passing round the rollers *i* and *j*. This arrangement of the ratchet, pawl, cord, and drop lever is duplicated for each yarn used.

Operation of Drop Lever

In operation the drop lever is continually moving up and down. The extreme high position is as shown at *x*, while the extreme normal low position is shown at *y*. A drop lever cannot be raised higher than the *x* position by the draw and feed of the yarn. The reason for this is that when the lever reaches this high position the cord with which it is attached to its latch *h* is raised as shown in the direction of the arrow, thereby releasing the pawl *h* from contact with ratchet *g*. This permits the spool controlled by the ratchet to rotate and give yarn. The drop lever consequently falls to its low position as shown at *y*. As it reaches the end of this low setting, the cord with which it is attached to its pawl *h* moves in the direction of the arrow shown on the left, thereby permitting the latch to again engage with ratchet tooth *g*. This prevents the spool from rotating further. The counterweight *h'* on the latch always acts to place the latch in contact with the ratchet against the counterweight action of the drop lever.

It will be seen that with this construction a very even and regular tension on the yarns is possible. Even if certain spools should resist turning more than others, the drop lever is really the tensioning member. Care must be exercised, however, to see that all spools are reasonably free to rotate when their pawl is released.

Stop Motion Possible

Since the drop levers are a necessary part of the construction of this device,

(Continued on page 79)

Fig. 1. Block in Sole

Fig. 3. Block in Toe

Fig. 4. Stepped Sole

Some Recent Improvements *in* Full-Fashioned Hosiery

*By F. K. Fogleman, B.S.**

THE modern trend in the manufacture of full-fashioned stockings is toward making a product that will give the maximum service at a minimum cost. One of the most important factors which has led to the accomplishment of this end has been the reinforcement of the stocking at its most vulnerable points. Several designs have been produced which tend to make the stocking more serviceable.

Since the toe of the stocking is usually the first point at which a break occurs in the fabric, considerable thought has been given to making it stronger and less susceptible to the cutting action of the toe nails and the edges of the shoe. A design which has tended to decrease the cutting action of the low-cut shoe on the silk instep portion of the stocking is shown in Fig. 1. It is known as the "block in sole."

This particular reinforcement can be made in two steps and thus follows more closely the curve of the shoe and possibly produces a design less noticeable to the eye. When it is manufactured in this way it is known as the "double block in sole."

Added reinforcements to this part of the stocking are usually referred to in the trade as "toe guards," but since it is confusing to refer to several individual formations by the same term, the foregoing specific terms have been

*Textile Machine Works, Reading, Pa.

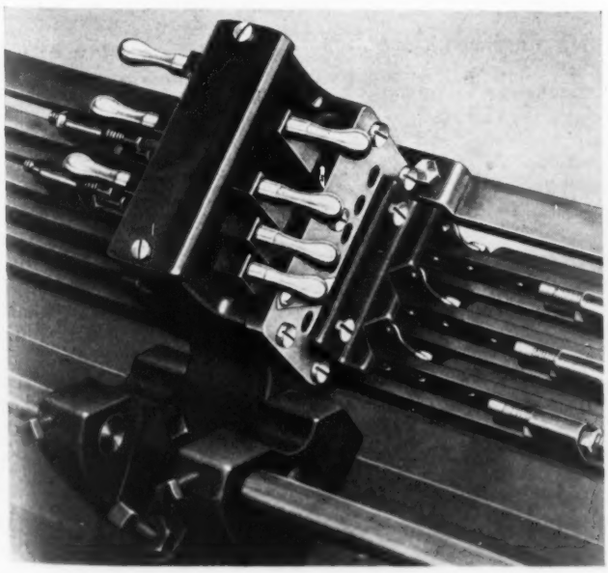


Fig. 2. Splicing Block Mechanism, Rear View

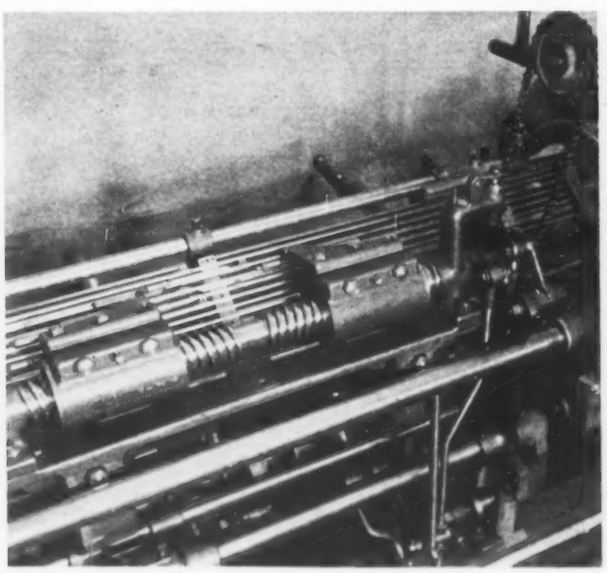


Fig. 5. Showing Part of Reinforcing Attachment

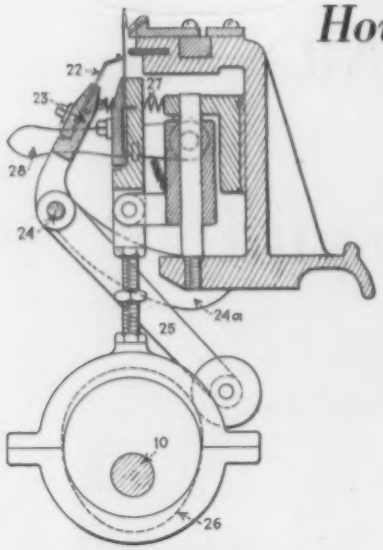


Fig. 157. High-Speed Design with Oscillating Knock-Over Bits

How Suitable YARN TENSION *Can Be Provided* in Warp-Knitting Machinery

. . . and Description of Vibrationless High-Speed Machine

*By M. C. Miller, M.E.**

TO SHOW the further possibilities of the construction illustrated in Fig. 156 on page 49 of the Aug. 24 issue, Fig. 157 has been prepared. This shows a differently arranged but very similar construction which should have considerable merit over the first.

In Fig. 157 it will be noted that the up-and-down needle-movement mechanism has been retained, as well as the general outline of the machine, but the knock-overs and web holders 14 have been altered in shape and caused to move in and out. This movement has been accomplished by mounting these knock-over bits 22 in the bar 23, which is fulcrumed on the shaft 24. This shaft is carried by brackets 24*a*, which form part of the machine frame. The shaft 24 is equipped with one or more roller levers 25 which ride against the cam 26. This cam is rotated by the shaft 10. A spring or springs 27 hold this roller or rollers against the cam and cause the bits 22 to move in the direction toward the press and away from the needle beards, as when the needles are drawing the new loops toward the knock-overs.

Vibrationless High Speed

I consider this method of operating the knock-over bits in many respects better than moving the needles in and out, for the reason that, due to the very short bit movement necessary, it would be practical to have these knock-over bits function at very high speed without vibration. To cause the needles to move in and out as well as up and down at highspeed invariably creates vibration.

This figure also shows hand levers 28 (there is at least one at each end of the needle bed) for permitting the needles to be swung out for easy removal, pliering, or inspection.

It would of course be possible to mount the knock-over bits 14, shown in Fig. 156, so that they could move to and from the needles. This would no doubt make a desirable construction, but the removal of a knock-over bit would be more difficult than in the construction shown in Fig. 157.

Operation of Machine

I have shown in Fig. 158 the various positions of the knitting elements of the machine illustrated in Fig. 157. As the elements are shown in *a*, the needles 1 have been raised to their extreme height, and immediately thereafter the eye-bar 18—which has a yarn for each needle—will be shifted sideways in order to wrap the yarns *x* around their respective needle shanks. When the needles descend, as shown in *b*, the tips of the beards *y* will pass over their respective yarns *x*. As the beards are pressed or closed, as shown in *c*, and the needle continues to descend, the yarns *x* can be drawn into loops, as shown in *d*. The knock-over bits *y* move in and out during each cycle at the proper time to permit the new loops

*Mechanical Engineer, Cumberland Hill, R. I.; P. O. Manville, R. I., R.F.D. This article is the 23d of Mr. Miller's series, "Principles of Knit Fabric Production," a comprehensive study of the past, present, and future of knitting mechanism. All rights to the use of this treatise are reserved. Previous articles appeared Jan. 23, Mar. 27, May 15, July 24, Sept. 18, and Nov. 20, 1926; Feb. 19, Apr. 9, June 18, Aug. 20, Oct. 22, and Dec. 24, 1927; Feb. 18, June 23, Aug. 18, Oct. 20, and Dec. 22, 1928; Feb. 16, Mar. 23, Apr. 20, June 22, and Aug. 24, 1929.

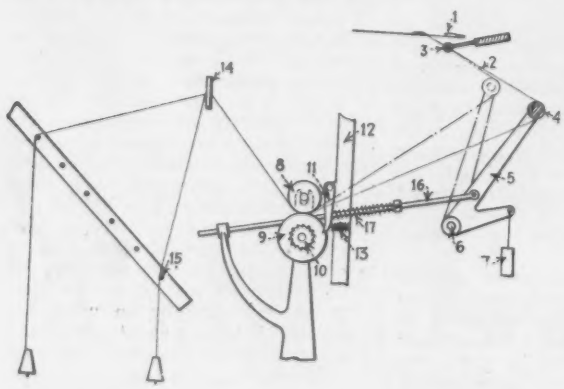


Fig. 159 (at Left). Yarn Feed from Individual Package

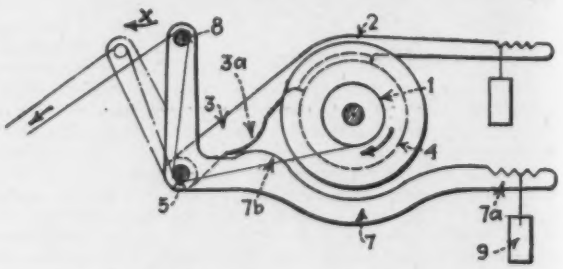


Fig. 160 (Above). Yarn Feed from Warp Roll

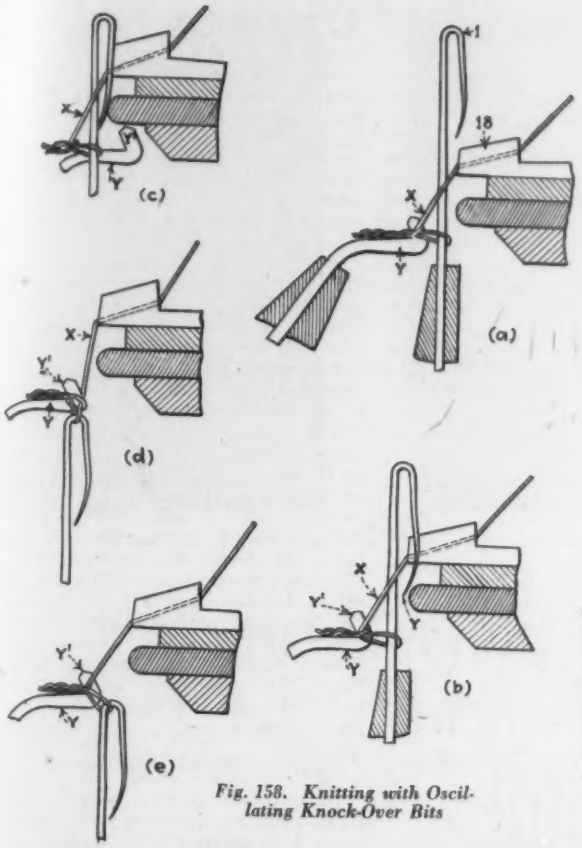


Fig. 158. Knitting with Oscillating Knock-Over Bits

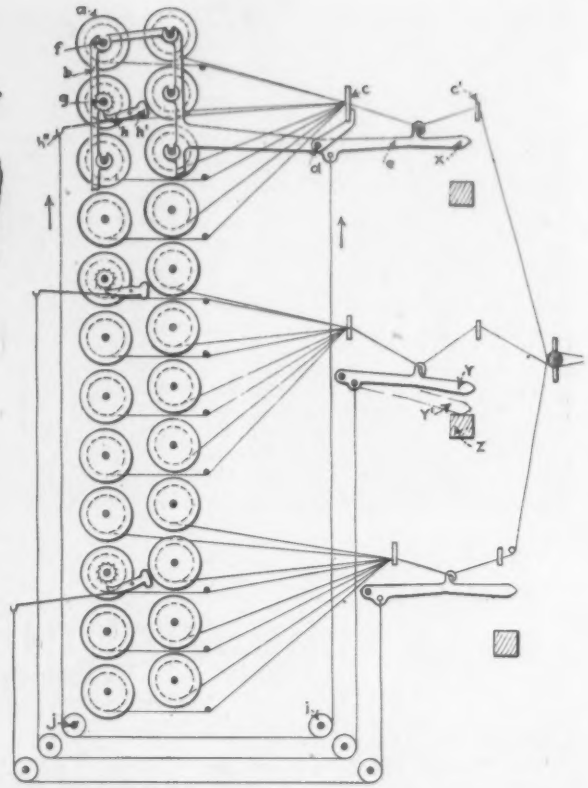


Fig. 162. Individual Tensions with Drop Leaves

to be kinked over their bits and to permit their holddown portion y', shown in *e*, to hold the previously knitted course toward the back of the needles and to prevent the fabric from rising with them. The needles are now returned to their extreme height, as shown in *a*, and the cycle of movements is repeated.

There have of course been many other types of web holders and knock-over bits used in warp machines, and these other types will be discussed as particular forms of warp machines are later described.

A very important unit of all warp machines is the means for applying tension between the yarn source, the eye needles, and the knitting needles. A simple and very efficient form is the construction shown in Fig. 140 on page 38 of the March 23 issue. This construction, however, can only be used when warp threads are carried on a single package or roll.

Individual Yarn Packages

It is often desirable, however, to be able to use a system of individual yarn packages; that is, use one package (bobbin, spool, or cone) for each yarn being knitted. By so doing, the delay and cost of making up beams are eliminated.

A simple construction to use in such cases is shown in Fig. 159. The needles 1 have the yarn 2 laid around their shanks by the eye needles 3. Tension is given these threads by a take-up roller 4, which is carried by the levers 5 fulcruming on the shaft 6 and counterweighted by the weights 7. The threads 2 pass around the roller 4 and between the rollers 8 and 9. One of these rollers is usually rough or in some cases sanded, the degree of roughness depending upon the nature of the yarn. The roller 9 is equipped with ratchet teeth 10 and can be made to rotate step by step through the action of the pawl 11, which is hinged to the slide 12. This slide is caused to move up and down by suitable connection with some driven part of the machine.

A tension spring 13 normally holds the pawl 11 out of ratchet-tooth engagement. The roller 8 is mounted in slotted brackets and is free to turn. Due to its weight, it effectively clamps the yarns between its under side and the top side of the roller 9. After the yarns pass between these two rollers, they are guided by the guide bar 14 and then are carried by the yarn bars 15 to their respective yarn bobbins, spools, or cones. The device is further equipped with the rod 16 and the compression spring 17. The rod is free to move endwise as the take-up roller 4 moves toward or away from the needles.

Operation of Feed

In operation the device functions as follows: The eye-needles move up and down between the knitting needles and also move endwise to lay their yarns over the shanks of the needles in the well-known manner. The needles draw these yarns into loops. This operation calls for more yarn to be supplied to the needles and therefore causes the take-up roller 4 to move toward the needles, because the yarns are clamped between the rollers 8 and 9. As the take-up roller reaches approximately the position shown in dotted lines, the rod 16 with its spring 17 is moved toward pawl 11. Due to the fact that the spring 17 is considerably heavier than the pawl spring 13, this movement of the rod 16 forces the pawl 11 into engagement with the teeth of the ratchet 10. As this pawl is periodically moving up and down, it causes a partial rotation of the roll 9. Due to the frictional contact between the rolls 8 and 9, the roll 8 moves in unison with the roll 9, and therefore yarn is delivered in the direction toward the needles.

This permits the take-up roller 4 to move in a direction away from the needles, causing spring 17 to release the pawl 11 from engagement with the ratchet, and in this manner stop the motion of the rollers 8 and 9. There is a constant, gradual movement of the take-up roller 4 toward the needles as yarn is being used, with a more or less sudden movement of this roller away from the needles as the friction rolls 8 and 9 deliver yarn. The movement away from the needles is usually timed to occur at the moment the needles are drawing the yarn into loops, so as not

to affect the tension unduly during the laying of the yarns.

Feed from Warp Roll

There are of course many other constructions that have been used. Another form is shown in Fig. 160. The warp roll, which is shown at 1, is normally held from rotating by the brake shoe 2, which is formed on the lever 3. The brake drum 4 forms part of the warp roll. This lever 3 is fulcrumed on the shaft 5, and is counterweighted at its other end. As long as nothing raises this lever 3 the warp roll 1 cannot turn and therefore cannot give yarn in the direction shown by the arrow. In order, however, that the machine can have yarn fed to it, the shaft 5 is further equipped with levers 7, which are equipped with the yarn rod 8, over which the yarns pass from the warp roll after going under the shaft 5. The other end *7a* of these levers 7 are weighted by the counterweight 9.

Both the levers 7 and 3 are equipped with an extension *7b* and *3a* respectively. As yarn is taken in the direction of the arrow (no yarn can be taken directly from the warp roll 1 in the setting shown) the yarn rod 8 is caused to move in the direction of the arrow *x* until the two extensions *7b* and *3a* contact with each other. A continued movement of the lever in the direction of the arrow *x* causes the yarn rod 8 with its lever 7 to raise the lever 3. This releases the warp-roll brake, thereby permitting the roll to turn in the direction of the arrow. The roll consequently gives off yarn and thereby permits the yarn rod 8 to move back into the position shown in the drawing. In this manner the brake is again applied to the warp roll.

Tension for Idle Yarns

Neither of these constructions, however, are suitable for use if certain or any of the yarns of which a fabric is formed are caused at certain times to be idling; that is, if there are times when certain of the yarns are not allowed to knit. This condition exists when any form of fabric design or color work is being produced, particularly when such idling of any of the threads is over any number of courses, as noted previously in the last paragraph of my June 22 article, page 39. In using warp machines for intricate fabric or color-pattern work, it is highly desirable to feed the yarns from individual cops, bobbins, cones, or spools, as is shown in Fig. 159. In such case tensioning means must be used which permits each individual package to have its separate tension, so that the yarns whether they are used or not will have the same tension placed upon them.

The construction shown in Fig. 161 is one form of separate thread-tensioning control. Contrivance *a* is a trough-like affair having the separation pieces *b*. Into these pieces and between them are laid the spools *c*, each individual yarn going from its spool through the eye-bar *d*. As any yarn *e* is caused to move in the direction of the arrow while it is being knitted, one tendency will be for the yarn to attempt to turn its spool in the direction of the arrow and thereby unwind it. However, there is considerable resistance to this turning, due to the friction between the edges of the flanges *c'* and the portion *a'* of the trough. The real tendency, therefore, is for the spool to move up

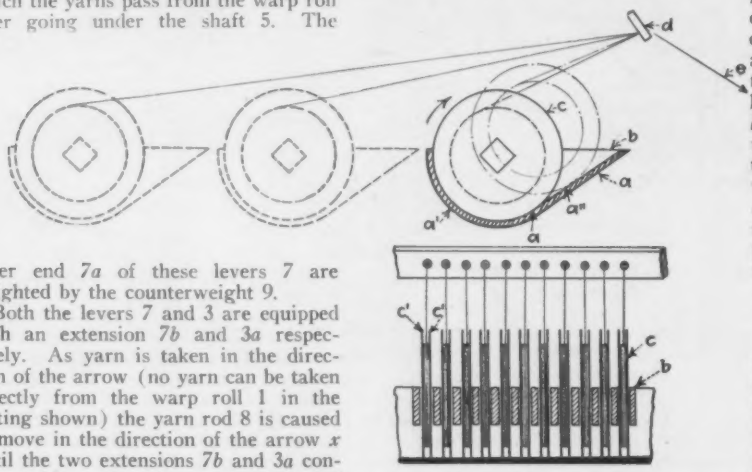


Fig. 161. Individual Thread Tensions

the incline *a''* into the position shown in dot and dash lines. In this manner the yarn is released for feeding the needle; and, as the spool cannot rest on this incline, it will roll back into the trough and again be frictioned by its flanges contacting with the surface *a'* of the trough. The resistance to the unwinding of the yarn therefore is the tension resistance brought about by the attempted turning and the climbing of the incline *a''*. It is this resistance that gives the yarn the necessary tension. In fine-index machines it would no doubt be necessary to have a number of these troughs, as shown in dotted lines.

Tension with Drop Levers

Another construction and one that has the further advantage of making possible the stopping of the machine when one or more threads break is shown in Fig. 162. (See p. 53.) Spools *a* are mounted in a rack *b*. There are a number (eight in the drawing) of these spools feeding their yarns to combs *c* and *c'*. There are any number of these groups of spools feeding to any number of combs. In the construction shown there are three groups or sets, one mounted above the other. The object of having the groups mounted one over the other is to permit the use of the device in machines having fine index without taking too much width. Increasing the width of the spool rack very much more than the width of the machine would usually be impractical from a floor space consideration and further would cause the outer spools to bring their yarns to the machine at an angle, thereby considerably increasing the friction and yarn drag.

By preference, therefore, the construction takes the form of a number of units one over the other with one or more sets of spools one behind the other. There is provided for each unit a stationary rod *d* on which are fulcrummed, free to move, the drop levers *e*. Of these there is one for each yarn.

The spools are all carried in the spool rack and have pins *f* projecting from each side. They are each further equipped with the ratchet *g*. Mounted at the end of each spool and carried by the yarn rack to fulcrum freely are the latches *h*, which are counterweighted at *h'* to cause the latch normally to attempt ratchet-tooth contact. The latch is further equipped with the extension *h''* which is connected with its drop lever *e* by a cord passing round the rollers *i* and *j*. This arrangement of the ratchet, pawl, cord, and drop lever is duplicated for each yarn used.

Operation of Drop Lever

In operation the drop lever is continually moving up and down. The extreme high position is as shown at *x*, while the extreme normal low position is shown at *y*. A drop lever cannot be raised higher than the *x* position by the draw and feed of the yarn. The reason for this is that when the lever reaches this high position the cord with which it is attached to its latch *h* is raised as shown in the direction of the arrow, thereby releasing the pawl *h* from contact with ratchet *g*. This permits the spool controlled by the ratchet to rotate and give yarn. The drop lever consequently falls to its low position as shown at *y*. As it reaches the end of this low setting, the cord with which it is attached to its pawl *h* moves in the direction of the arrow shown on the left, thereby permitting the latch to again engage with ratchet tooth *g*. This prevents the spool from rotating further. The counterweight *h'* on the latch always acts to place the latch in contact with the ratchet against the counterweight action of the drop lever.

It will be seen that with this construction a very even and regular tension on the yarns is possible. Even if certain spools should resist turning more than others, the drop lever is really the tensioning member. Care must be exercised, however, to see that all spools are reasonably free to rotate when their pawl is released.

Stop Motion Possible

Since the drop levers are a necessary part of the construction of this device,

(Continued on page 79)

Fig. 1. Block in Sole

Fig. 3. Block in Toe

Fig. 4. Stepped Sole

Some Recent Improvements *in* Full-Fashioned Hosiery

*By F. K. Fogleman, B.S.**

THE modern trend in the manufacture of full-fashioned stockings is toward making a product that will give the maximum service at a minimum cost. One of the most important factors which has led to the accomplishment of this end has been the reinforcement of the stocking at its most vulnerable points. Several designs have been produced which tend to make the stocking more serviceable.

Since the toe of the stocking is usually the first point at which a break occurs in the fabric, considerable thought has been given to making it stronger and less susceptible to the cutting action of the toe nails and the edges of the shoe. A design which has tended to decrease the cutting action of the low-cut shoe on the silk instep portion of the stocking is shown in Fig. 1. It is known as the "block in sole."

This particular reinforcement can be made in two steps and thus follows more closely the curve of the shoe and possibly produces a design less noticeable to the eye. When it is manufactured in this way it is known as the "double block in sole."

Added reinforcements to this part of the stocking are usually referred to in the trade as "toe guards," but since it is confusing to refer to several individual formations by the same term, the foregoing specific terms have been

*Textile Machine Works, Reading, Pa.

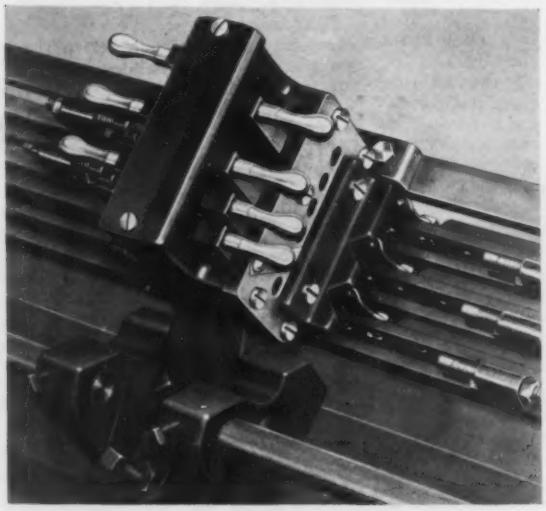


Fig. 2. Splicing Block Mechanism, Rear View

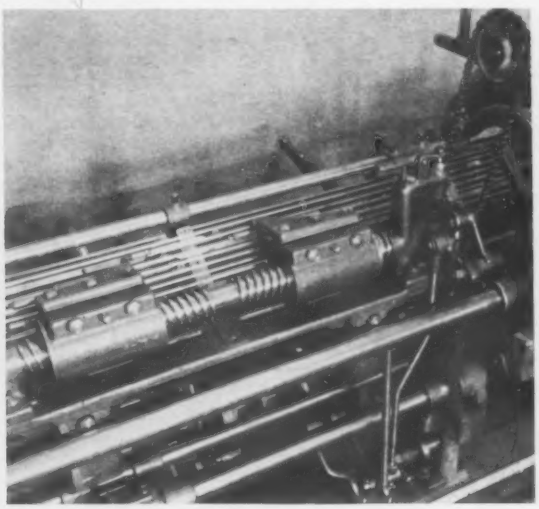


Fig. 5. Showing Part of Reinforcing Attachment

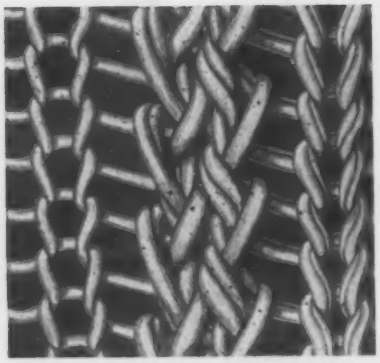


Fig. 6. Open Seam

adopted. These reinforcings in the foot of the stocking are, of course, only an extension of the sole portion into the instep and are made possible by the use of a mechanism known as a splicing block, which is shown at Fig. 2.

Splicing-Block Mechanism

This splicing block is used on the full-fashioned footer for increasing the travel of the reinforcing yarn carrier when knitting the "block in sole" or "double block in sole." As shown in Fig. 2, it has a number of vertical-sliding stops assembled in such a manner as to halt the carrier rods when the adjustable screw stops mounted on the carrier rods come in contact with them. It will be noted that there are two adjusting screws on the carrier rod stop. These screws form the means for knitting the "double block in sole." The sliding stops of the splicing bracket may be placed in any one of three positions; first, the inactive position; second, the position that will cause contact with the upper adjusting screw on the carrier-rod stop; and third, the position that will cause contact with the lower adjusting screw. When setting the adjusting screws for "double block in sole," the lower screw is set a distance beyond the upper screw equal to the width of the step desired, thus making it possible to knit the step formation by changing the setting of the sliding stops.

A splicing block similar to the one shown in Fig. 2 is used for knitting the "block in toe," or "toe guard," shown at Fig. 3. This added reinforcement is at a point where it will increase the resistance of the fabric to the wearing and cutting action of the toe nails, and thus greatly increase the serviceability of the stocking.

Reinforcing Attachment

As previously stated, the "block in sole" and "double block in sole" are placed in the stocking to cause the reinforced section to follow the curve of a low-cut shoe. Though these designs are satisfactory, a still more pleasing type, one which presents a graceful curve to the sole, can be made by the use of the reinforcing attachment. This design is known as the "stepped sole" (Fig. 4). The reinforcing attachment is also used to produce other reinforcing designs, such as pointed heels (Fig. 1) and French heels (Fig. 4).

Fig. 5 shows the part of the reinforcing attachment that controls the reinforcing carrier travel when making these designs. It is similar to the regular narrowing head and is operated by cams in conjuction with the chain motion of the full-fashioned machine. Zig-zag designs can be made through the use of a reversing mechanism in connection with the regular reinforcing head.

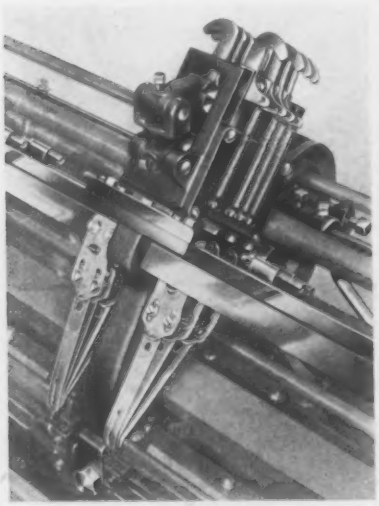


Fig. 7. Split-Sole Attachment

Split-Sole Attachment

Another type of stocking that is in popular demand is one which has an all-cotton sole with a silk instep. The stocking shown in Fig. 1 is of this type. This produces what is known as a split foot, and the instep and sole portions are joined together by an open seam (Fig. 6). The knitting of a foot of this type is made possible by a mechanism known as a split-sole attachment (Fig. 7). This device is operated automatically in such a manner as to cause the formation of cross loops and thus interlock the cotton yarn of the sole with the silk of the instep. When in operation the cam action of the split-sole attachment is such as to release the carrier rod, and allow it to travel an additional distance of from two to four needles, and in this way form the cross loops.

These designs are both practical and ornamental. They give added strength to the stocking in order to make it stand unusual service without breaking down, and form an attractive garment of great utility.

Mohair-and-Wool Mixture Yarns

Mixing Varieties, Colors, and Qualities and Testing Tops

By T. R. N.

WHEN the fashion runs upon bright goods, there is always a large trade in yarns made from a mixture of mohair and luster wool. Although the silvery brightness of the mohair is the feature sought, it cannot be used to a great extent in the pure state because of the higher prices which result. Moreover, it is often required to be spun to a finer count than any but the highest grades of mohair will attain; and the addition of a sound, bright wool of good spinning quality will permit a somewhat inferior mohair to be used without requiring the excessive amount of twist which would be needed to spin the mohair alone.

Wool-and-Mohair Filling

Some of the goods produced—notably glacés, high-class Sicilians, and brilliantines—are made with a dyed or tinted cotton warp and a pure-white luster-mohair filling. For these fillings the wool and mohair must be bleached, either separately or after they have been mixed in the required proportions by passing through a gill box—depending upon which is most convenient.

It is usual to have a range of qualities; and, supposing three qualities are required, they might be:

75% mohair with 25% luster wool
50% mohair with 50% luster wool
25% mohair with 75% luster wool

Any defect in the way of noil knots or slubs is very objectionable in this class of yarn, and must be strictly avoided. Hence, a recombing process is often necessary.

The materials must be carefully selected to allow of a good spin, with few piecings and a minimum of twist; and low speeds must obtain throughout to prevent fly and any tendency to produce a loose, wild yarn. The process of bleaching requires the slubbing to be made up in the form of hanks, and these must first be thoroughly washed in order that the greasy matter may be removed. They are then suspended on poles while in a moist condition in an air-tight brick chamber, and subjected to the fumes of burning sulphur for a period of six to eight hours. Afterwards the chamber is ventilated and the hanks removed, washed, and dried. The amount of sulphur required is in the proportion of 6 to 8% of the weight of wool to be stoved.

The effect on the material of bleaching, independent of the effect on the color, is to make it very loose and difficult to work, and this requires to be reckoned with in subsequent processes.

The hanks are first wound on to bobbins; then there follows (1) a passage through one or two gill boxes, (2) recombing, and (3) a passage through two finishing gills. After this the material is ready for the drawing processes.

The gill boxes should have coilers attached to put in a slight amount of twist and coil the slivers in the best possible way for drawing out, as otherwise the strands will be constantly breaking down. The recombing must also be done on a nip comb, as the material is practically unworkable on the Noble. The reason for this is that the slivers, being drawn off from four points, are so lacking in body that they will not carry, whereas on the nip comb one good solid sliver is drawn off. In this explanation there lies a strong hint as to the advisability of working with good solid slivers to avoid trouble with all loose, slippery materials.

Mixture Yarns

There is a considerable quantity of colored fleeces—brown, fawn, and black—in wool, mohair, and alpaca, particularly in the latter; and these are utilized to make what are known as natural mixtures, or melanges. In addition to this class, mixture yarns are made by blending dyed wools, and a very wide range can be made by working on systematic lines. Thus, a mixture of black and white produces gray; and by varying the proportions of each a range can be made grading from white to black. The following examples form a useful range:

Black....7....5....2....3....2
White...2....3....2....5....7

By taking any solid color, it may be modified by the addition of white or black in different proportions. If white is used, a range of tints will be produced; if black, a range of shades of that particular hue. Three-color mixture are not much used, but can of course be easily made, and the addition of a touch of blue, purple, or scarlet will give a little bloom to gray mixtures.

The preparatory work of dyeing, breaking up, recombing, etc., is carried out just the same as for solid colors. After this the blending is carried out; and one or two gill boxes should be set apart for the purpose. The number of ends fed up of each color must be regulated to obtain the correct proportion, and a good stiff draft—say 12—is advisable, so that a large number of doublings may be obtained at the next operation. Four or five passages through the box, or boxes, are required, for streakiness must be completely obliterated.

Mixing Different Qualities

The practice of mixing tops of various qualities, or different makes of similar quality, is very common, and has certain decided advantages. Perhaps the greatest advantage is that it enables any given quality of yarn to be kept more uniform in every respect than it could otherwise be. Even with the exercise of the greatest care, it is at times impossible to keep one quality of wool uniform the year round; but when the spinner is dependent on the topmaker the variation may be considerable, particularly in color. There is the further consideration that he may find himself too much tied if reliance is placed on one particular make. Moreover, many yarns rely for success upon a certain combination of qualities which can only be secured by mixing wools of dissimilar characteristics; and a further reason, which is at times all-powerful, arises from the necessity of being in a position to make a yarn at a cut price. Then a slight readjustment in the proportions which may not affect the efficiency of the yarn for the purpose it is to be used may do what is required. Assuming for the sake of comparison that a yarn is being spun from one make of top, and the other from ten, a little reflection will make it clear that the latter offers far more scope for adjustment to suit changing conditions than the former.

Mixing must, however, be conducted on a proper basis, or it will be a fruitful source of imperfect yarn. The production of a level yarn depends largely on using a blend of tops in which the fibers are of fairly even length. It is, in fact, almost impossible to produce a satisfactory yarn, except, perhaps, in thick counts, from very uneven materials, as the short fibers become unevenly distributed and given rise to irregularity in the twist. Twitty yarn can very frequently be traced to this source.

Moreover, it is seldom economical to mix tops which are distinctly different in regard to fineness, as a little of the best is completely lost in the bulk of the other, while if the proportions are reversed, the admixture of a little of a distinctly coarser grade deteriorates the value of the yarn, and may be the cause of excessive waste. Strict care is necessary to keep the same relative proportions from the start to the finish of a run and an eye must be kept on the weight of the top slivers, as these are apt to vary, and failure to detect such variation will not only affect the proportions, but will be attended by other undesirable consequences.

Testing Tops

At this stage the interests of the topmaker and spinner may come into conflict, more especially where these are not combined under one head. The spinner who purchases tops in the open market must keep a sharp lookout upon the material delivered, both in respect to quality and condition. In any wool the relative quality will be determined either by comparison with a standard sample, or with some other maker's top of professedly the same quality.

The criterion includes a consideration of the relative length and fineness, freedom from strong hairs and kemps, hygroscopic condition, oil content, and tendency to excessive looseness or toughness.

The test for length may be carried out best with the assistance of a black board or table divided into equal sections. Taking the top sliver in one hand, the other is used to grip the fibers protruding from the end, care being taken that the full width of the sliver is held as the fibers are drawn out. The cast thus obtained is then carefully spread out on the board. Both samples are similarly treated, and when laid out show tops of presumably similar quality. Compared in this way, however, it may be seen that one is not only more even in length, but the average length is also higher. Thus, other points being equal, it is the better top. Several tests should be made before a final decision is taken.

The samples may next be carefully compared to ascertain their relative fineness, notice being taken of any strong hairs, kemps, or uneven fibers, as these all indicate deficiencies which will affect the spinning. The condition must next be inquired into, notice being taken of any clamminess due to the presence of an excessive amount of oil, or any under looseness caused by overwashing or the use of alkalies which are too strong. The former will make the wool more difficult to work, causing the rollers to be sticky, and the wool as a consequence will wrap round them, causing bad work and breakages. On the other hand, excessive looseness is detrimental to good spinning, and results in an excessive amount of fly.

Hygroscopic Condition

There is, further, the hygroscopic condition to determine, as any excess of moisture will be paid for as wool; moreover, damp wool is difficult to draw evenly, and is almost certain to produce curly yarn. Topmakers, as a rule, will agree to the tops being passed through the conditioning house, on the terms that each party shall pay half the fee for testing, an adjustment being made in whichever direction it may be required on the basis of the standard regain (19%) added to the absolute dry weight of the wool. In some few instances buyers pass the wool through the conditioning house at their own cost, and debit the wool merchant with any excess of moisture above the standard. The latter, however, protects himself by putting in plenty of moisture, and then cheerfully allows for an excess.

Where the conditioning house is not resorted to and the turnover is large, a testing oven is a good investment, as the spinner can prove to his own satisfaction whose tops can be relied upon and whose he must avoid. Even without such assistance any gross instances of excess may be readily detected by a person of experience in the handling

---

Fisher Hosiery Co., Reading, Pa., has been organized with a capital of $150,000, to take over and succeed the company of same name, with local mill at Seventh and Court Sts. P. Henry Fisher has been elected treasurer of the new company. Frederick M. Fisher, Reading, and H. E. Katzenmoyer, Muhlenberg Township, Berks County, are interested in the organization.

THE PERSONAL PAGE

Dr. W. C. Hamrick, of Gaffney, S. C., president of the Hamrick group of textile mills in that section, who represents the county of Cherokee in the South Carolina State Senate, and is chairman of the Cherokee County Natural Resources Commission, has been named head of a committee which will formulate a program for resources development of the Piedmont counties of South Carolina.

B. G. Slaughter, president of the Tubize Artificial Silk Co., has been elected second vice-president of the Virginia Manufacturers Association and **Fred Pilcher** was re-elected treasurer.

Walker D. Hines, of New York, president of The Cotton-Textile Institute, was in Gaffney, S. C., last week for a conference with Dr. W. C. Hamrick, president of the Hamrick group of cotton mills.

George M. Wright and **F. E. Vantine**, president and treasurer, respectively, of the Republic Cotton Mills, of Great Falls, S. C., sponsored a splendid program at the Chester (S. C.) Rotary Club. The occasion was designated Great Falls Day.

E. J. McMillan, vice-president and general manager, Standard Knitting Mills, Knoxville, Tenn., was recently named chairman of the industrial division for the Community Chest campaign in that city.

H. E. Machold, vice-president of the Skenandoa Rayon Corp., Utica, N. Y., has been elected to the executive committee of the newly organized National Bank & Trust Co., at Oswego.

William Mitchell and Mrs. Mitchell have left Skowhegan, Me. and gone to Methuen, Mass., where they will make their home. They came from Lawrence, Mass., 25 years ago, when Mr. Mitchell founded the Maine Spinning Co. He is now its vice-president and will continue to hold that office.

Theodore Belanger, vice-president of the Champlain Silk Mills, Whitehall, N. Y., was guest of honor last week at a banquet given by the Foremen's Club at which he delivered an illustrated address on his recent trip to China and Japan.

Joseph C. Cobb, secretary of the Southern Textile Association, with headquarters in the Johnston Building, Charlotte, N. C., has resigned, to accept the managership of the southern department of the Shambow Shuttle Co., with offices in Greenville, S. C. Mr. Cobb, it is understood, will continue supervision of the work of the Southern Textile Association until a secretary has been secured to take his place.

A. S. Barnett was recently appointed receiver for the Alspach Rayon & Knitting Co., Lenoir City, Tenn. The concern has a capitalization of $200,000 and its physical property includes 10 knitting machines for the manufacture of women's bloomers and vests, together with finishing equipment.

S. L. Hutcheson, of Peerless Woolen Mills, Rossville, Ga., but who has been connected with the New York sales office of that concern at 257 Fourth Avenue, was married Oct. 10, to Miss Jean Ruth Crowe, of Philadelphia. They sailed from New York on the S. S. "Roma" for an extended bridal tour in Europe.

Dr. Z. A. Mulkie, of Millen, Ga., has been appointed physician for the village of the Morgan Cotton Mills of Georgia, and Mrs. Moore, community nurse.

Richard White, Aberfoyle Mfg. Co., Philadelphia, won the low net golf prize at an outing of the sales department of the firm, held at the Philadelphia Country Club, Oct. 4. Salesmen from the various branch offices were present. Dinner was served in the evening.

R. B. Thall, recently connected with the United States Finishing Co., on the Cedartown, Ga., account, is now representing the Waldrich Bleachery, of Delawanna, N. J., on the New York market.

Following is the board of directors of the Bibb Mfg. Co., elected Oct. 10. **Judge Samuel B. Adams**, Savannah; **William D. Anderson** and **Wm. D. Anderson, Jr.**, Macon; **W. C. Bradley** and R. **Curtis Jordan**, Columbus; **Mills B. Lane**, Savannah; **W. E. Muir**, Surrey County, England; **B. P. O'Neal** and **Jas. H. Porter**, Macon; **E. W. Stetson**, of New York; **R. J. Taylor**, Macon, and **D. A. Turner**, Columbus, Ga. The directors elected the following officers for the ensuing year: **William D. Anderson**, chairman of the board of directors and president; **James H. Porter**, executive vice president; **William D. Anderson, Jr.**, vice president; **A. A. Drake, Jr.**, secretary and treasurer; **Charles C. Hertwig**, assistant secretary and assistant treasurer. The executive committee chosen for the year was: Wm. D. Anderson, W. C. Bradley, Mills B. Lane, James H. Porter and E. W. Stetson.

Arthur A. Murphy, sales manager of the Industrial Rayon Corp., whose headquarters are in New York City, will be in Cleveland during the absence of president **Hiram Rivitz** and vice-president **Frederick C. Niederhauser**, who sailed recently for Europe.

George A. Sloan, secretary, The Cotton-Textile Institute, made a recent trip through the South, visiting mill executives in Charlotte, Spartanburg, Greenwood and other towns.

C. C. Jantzen, secretary of the Jantzen Knitting Mills Co., Portland, Ore., left early in October on the steamer "Malola" for around-Pacific cruise. He was accompanied by Mrs. Jantzen and their daughter and son Oneita and Carl. Mr. Jantzen will call on the Jantzen representatives at Tokio, Shanghai, Manilla, Singapore, Batavia and Honolulu. While in Australia he will inspect the new Jantzen factory at Sydney.

C. E. Hardies, formerly treasurer of the Van Brocklin & Stover Co., Amsterdam, N. Y., has been appointed a member of the executive committee of the Chamber of Commerce in that city which has launched a drive to promote industrial progress.

Alfred E. Colby, treasurer of the Pacific Mills, accompanied by Mrs. Colby, sailed last week for Europe on the S.S. "Bremen."

H. S. Adams, secretary and treasurer of the Eureka Cotton Mills and the Springstein Mills, both of Chester, S. C., spoke on "Thrift," and **E. R. Lucas** of Chester, vice-president of the Aragon-Baldwin Cotton Mills, Inc., on "The Personality of High School Teachers" at the adult night school teachers conference, of Chester County, and York, S. C., county held at Chester.

Hugh S. Jones, general manager of the Utica (N. Y.) Knitting Co., has been

International News Reel

***JAPANESE DELEGATES** to the International Raw Silk Technical Conference visit President Hoover at the White House. They were presented to the President by Ambassador Katsuji Debuchi. Leaving the White House are the Ambassador (center), and the Delegates T. Ito (left), and T. Higo (right)*

instrumental in the formation of a new Industrial Relations Department of the Y.M.C.A. in that city which will promote industrial welfare.

Frank M. Peck, formerly of Millbury, Mass., is general manager of the Moniteau Woolen Mills, California, Mo.

J. C. Judge, Jr., has resigned as superintendent of the Union Cotton Mfg. Co., Fall River, Mass.

H. E. Harden is now night superintendent of the spinning, spooling and warping departments of the Shelbyville, (Tenn.) Cotton Mills. He was formerly superintendent of the spinning department of the Cotton Mills Products Co. of Mobile, Ala.

A. B. Cavanaugh, formerly superintendent of the Manville Jencks Co., is now superintendent of the Greylock Mills, North Adams, Mass., succeeding **E. H. Earnshaw.**

R. G. Nutthall, who recently resigned as superintendent of the Dixie Mercerizing Co., of Chattanooga, Tenn., to accept a similar position with the Ocoee Spinning Co., Delano, Tenn., has assumed his new duties.

Walter S. Stewart has been appointed superintendent of the Blackstone (Mass.) Mfg. Co., a subsidiary of Lonsdale Co. He will succeed **Frank L. Bills,** who has resigned.

Lyman A. Hamrick, superintendent of several mills in the Hamrick group, Gaffney, S. C., has been elected commander of the local post of the American Legion.

John Clarke, for 18 years with Ludlow (Mass.) Mfg. Associates, and holding the offices of general superintendent and assistant agent, among others, has resigned from the company's service, effective Nov. 1, and will live in Merchantville, N. J.

B. J. Boddie, formerly with the Jasper Mills of the Alabama Mills, has been appointed night superintendent at the Albertville plant of Saratoga Victory Mills.

J. Hoedecker, until lately mill superintendent of the Kenwood Mills' plant at Arnprior, Ont., Canada, has returned to the mill of F. C. Huyck, the parent plant of the Kenwood Mills, at Albany, N. Y., and has been succeeded at Arnprior by **A. Mohr.**

William H. Rigby, assistant superintendent of the Merrimack Mfg. Co., Lowell, Mass., upon his completion of 40 years service was tendered a reception by 400 employes of the company. Both Mr. and Mrs. Rigby received numerous gifts.

C. H. Dobson, master mechanic, Brookside Mills, Knoxville, Tenn., was elected vice-president of the National Association of Power Engineers at their recent convention in Chattanooga, Tenn.

J. H. Curtis, formerly card grinder for the Gordon Mills, Inc., Roaring Rapids, N. C., now holds a similar position with the Wilco Mills, North Wilkesboro, N. C.

Arthur Davis has been appointed supply-room clerk at the Hermitage Cotton Mills, Camden, S. C.

H. H. Iler, formerly master mechanic and chief engineer at the Newberry (S. C.) Cotton Mills, has accepted the position of master mechanic at the Union Bleachery, Greenville, S. C.

John P. Halman is now head of the weaving department of the Clinton (S. C.) Cotton Mills.

C. E. Craft is now second hand in carding at the Watts Mills, Laurens, S. C.

Dexter Jordan has accepted the position of head weaver at the Bibb Mfg. Co., Columbus, Ga.

J. M. Porter has tendered his resignation as second hand in the night spinning room at Mill No. 2, of the Republic Cotton Mills, Great Falls, S. C., to enter business at Rock Hill, S. C.

J. B. Knight, Sr., recently resigned as overseer of the spinning department of Avondale Mills, Birmingham, Ala., to join the Peerless Mills, at Thomaston, Ga.

Joseph Wright, overseer of slashing, beaming, quilling and drawing for the Manville Jencks Co., Manville, R. I., has resigned his position with that company.

A. P. McAbee, of East Lumberton, N. C., is overseer of weaving, beaming and slashing at the Consolidated Textile Corp., Raleigh, N. C.

F. N. Jackson is now overseer of spinning at the Clinton (S. C.) Cotton Mills.

Joseph R. Loper, overseer of weaving for the A. D. Ellis Mills, Monson, Mass., has resigned his position with that company.

A. G. Neel, formerly connected with the Peerless Knitting Mills, Barre, Vt., is now in the employ of the Earnshaw Knitting Co., Newton, Mass., as assistant to **Jos. H. LeConey.**

John Whitt, formerly night mechanic at the Balfour (N. C.) Mills, now holds a similar position with the Pacolet (S. C.) Mfg. Co.

S.T.A. Semi-Annual Meeting on Nov. 1 and 2

According to announcement by Joseph C. Cobb, secretary of the Southern Textile Association, the forty-second semi-annual meeting of the organization will be held at the Franklin Hotel, Spartanburg, S. C., Nov. 1-2. Several papers will be presented on selected phases of the general subject, "The Value of New Machinery," while an interesting feature of the meeting will be a talk by Herbert E. Gyles, on the subject, "Crime Prevention for the Leisure Hour." The meeting will open at 10:00 a.m., and one of the largest gatherings of mill superintendents, overseers and managers in the history of the association is expected.

WILLIS H. CARRIER, president of the Carrier Engineering Corp., Newark, N. J., makers of air conditioning, drying and refrigerating apparatus, who sailed Oct. 10 to Tokio where he will address the World Engineering Congress. Mr. Carrier goes to the Congress as a delegate of the American Society of Heating and Ventilating Engineers and the American Society of Refrigerating Engineers. He will read a paper discussing the control of humidity and temperature as applied to human health and comfort, and in manufacturing processes

Massachusetts Charitable Mechanics Association Awards Scholarships

The Massachusetts Charitable Mechanics Association, of Boston, Mass., has just given twelve scholarships to the different textile schools of Massachusetts for worthy boys. This action was taken on the recommendation of Frank L. Nagle, of TEXTILE WORLD, who is president of the association.

Textile Courses at Alabama Polytechnic

Alabama Polytechnic Institute, Auburn, Ala., which is a State agricultural and engineering college now developing a school of textile engineering for the first time, is constructing a two-story, 300x60 ft. brick building which will be ready for occupancy about Nov. 1. The building will have 800 ring spindles, 26 looms, and 4 knitting machines. Bradford Knapp is president and E. W. Camp, treasurer.

Have you an overhead-ache?

Maybe your business needs a little simple life

WINDING and oiling yarn has no more to do with the knitting business than finishing and cutting up the fabric. If you're big enough to do it fairly economically (and that means scientifically) the cost isn't as great, but if you're just average size, of course you'll have an "overhead-ache" trying to run two businesses on one overhead. If winding and oiling is really such a simple sideline as some knitters seem to think it is, then the du Pont Rayon Company is wasting a lot of money on its extremely conscientious oiling and winding processes.

Most successful businesses are built upon doing just one thing and doing it extremely well. There are enough problems in knitting alone without adding the problems of oiling and winding.

The overhead in your winding and oiling department is just as great as it is for your knitting section. You don't pretend, of course, that your saving, if any, is as great as the profit on your knitting section. Most of the time, of course, you don't know just how much it does cost you to wind and oil your yarn. How can you calculate the amount of yarn waste, the degrading of yarn by reason of frequent handling, the maintenance of machinery and other equipment, labor losses, and loss of time while the yarn is tied up in the process of oiling and winding? How then do you know what you're saving; how do you know you're saving anything; how do you know you're not losing money? It's a gamble and a bad one. Aren't there enough uncertainties in the knitting business to satisfy you?

How much simpler to buy du Pont rayon cones at a definite cost, knit them into fabric at a definite cost, and sell the fabric for a definite price. That is business, good business. You know where you are all the time. No waste, no degrading of the yarn. Machines run smoother because these cones have the knots all on the head; they run twice as long because a bottle bobbin contains only half as much yarn; the texture is more uniform because the tension is more uniform due to the constant ballooning of the du Pont cones; and, most important of all, all yarn on du Pont rayon cones is first quality.

Put your non-productive floor space to work, show a profit on labor and supervision; eliminate the maintenance of expensive machinery and equipment. Simplify your business and see how quickly your overhead-ache will disappear.

There's just one reason why du Pont oils and winds more rayon cones than any other producer: Knitting mills have discovered that du Pont rayon cones are better than a sideline business. Why don't you go into the knitting business 100%?

Du Pont Rayon Company, Inc.
2 Park Avenue, New York City.

DUPONT RAYON

REG. U.S. PAT. OFF.

Member Rayon Institute of America, Inc.

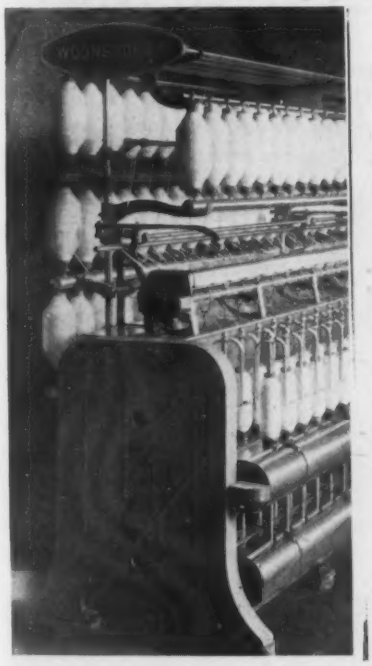
NEW MACHINERY & PROCESSES

Creel for Cotton Roving

Made of Steel Tubes with Inserted Porcelain Steps

The Woonsocket Machine & Press Co., Inc., Woonsocket, R. I., has developed for its roving frames a steel tube creel with inserted porcelain steps for the skewers. By the use of steel tubing of a proper diameter, a very stiff creel is obtained and one that is vibrationless within itself. The tubes and supporting brackets are coated with aluminum; and the reflected light from this surface is claimed to brighten the room to a considerable extent. As a result of this, the suggestion has been made that the creel be called the "Daylight Creel." Another suggested name is the "Vibrationless Creel." At present, however, the company prefers to refer to it as the "Steel Tube Creel."

The eye for holding the top of the skewer is not a screw eye, but is a loop of wire which is inserted into the tube in such a manner that it cannot be turned around or displaced. The top of the creel is of ample width for receiving two rows of 12 x 6 in. bobbins without crowding. The round tubing is not so likely to collect lint as were the wooden bars in the old model. Since headless set screws are used in all brackets, there are no projections on which the roving is likely to catch.



Cotton Roving Frame Equipped with Steel Tube Creel

Compares Warp Tensions

Device Aids Uniform Adjustment of Looms on Same Goods

A new instrument known as the "warp tensometer," for comparing the warp tensions on looms weaving the same fabric, has been placed on the market by the Crompton & Knowles Loom Works, Worcester, Mass. It is simple to apply and gives a direct dial reading. Its purpose is to prevent variations in the finished goods due to variations in the warp tensions on the looms. One loom which is pronounced as perfect in respect to warp tension is taken as a gage, and then with the tensometer all other similar warps are adjusted by putting on or taking off weight so as to equal the dial reading on the loom acting as gage. Besides its use for comparing the adjustments of a number of looms, the instrument can be used to check up the tension of the warp on one loom at various intervals during the weaving.

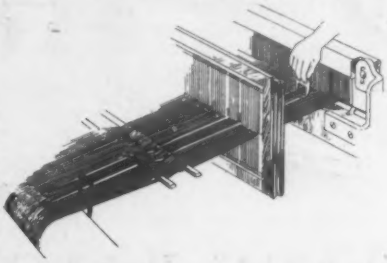


Fig. 1. Preparing Warp for Application of Tensometer

The first operation in applying the instrument is to separate a number of warp threads, as shown in Fig. 1, either by hand or by the use of a divider. Experience will soon tell the best number of ends to be taken for testing a certain fabric. For 13/15-denier silk it has been found that 100 ends is a satisfactory number. For the average woolen 60 ends will suffice. For a 75-denier rayon warp approximately 150 ends should be used. It is the tension of these ends which the instrument is to record. That they may not be lost and can be readily subjected to tests by the instrument at any time, a wire drop should be placed over them.

The frame on which the instrument stands is slipped under these threads and the long "foot" located immediately under the dial is allowed to rest on top of them, as shown in Fig. 2. The reading of the dial depends on how far the threads are depressed by the weight of the foot. The lay is placed in a definite position which can be accurately duplicated on the other looms, and a few seconds are allowed to elapse for the warp ends to settle slightly. The dial is then read. The graduation of this dial is arbitrary and should not be taken to mean pounds or ounces.

Fig. 2. Warp Tensometer in Position

Traverse for Cotton Roving

Simplified Mechanism Adjustable for Full Roll Length

A new traverse motion for cotton roving frames has been developed by Samuel J. Bishop, Spartanburg, S. C. It is being built by the Greenville (S. C.) Spindle & Flyer Co., but is

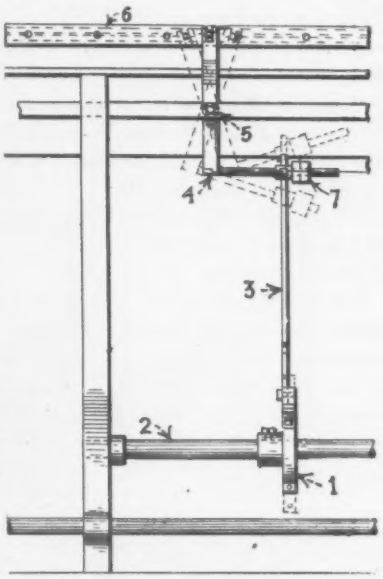
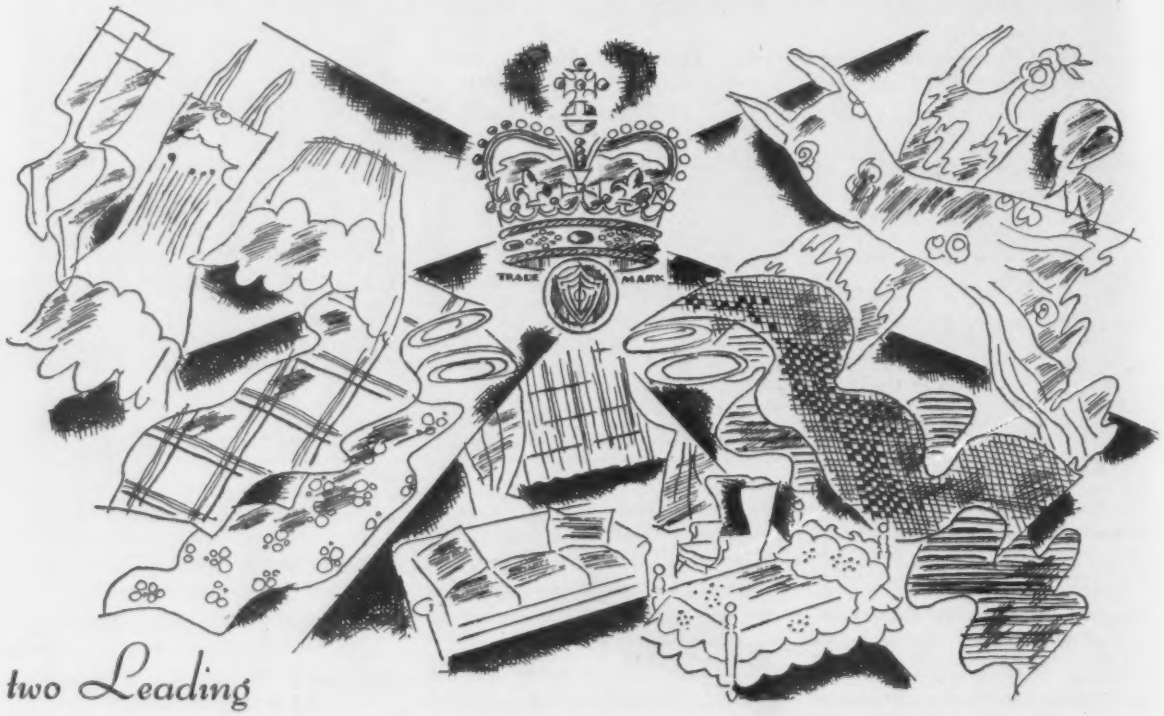


Diagram of Traverse Motion for Cotton Roving Frames

Important Stores make Capital of DULENZA *and* DULESCO



two Leading

CROWN BRAND RAYON YARNS

FABRICS and frocks and other things of fine rayon have won on their merits the favor of the fashionables and the respect of retail stores. More and more we find them advertised, advised and otherwise glorified.

Some of the very finest stores are using the names of CROWN Brand Rayon Yarns to individualize their stocks and assist their selling. They know that goods or garments marked DULENZA or DULESCO will hold and increase customer good-will. They are simply making it easy for smart women to repeat satisfactory purchases.

Modern competition makes it necessary to know materials—to understand their fine distinctions and appreciate their special qualities. Crown Brand Rayon Yarns offer direct benefits to every factor in the industry. Each has its own contribution—to the success of the mill, the converter, the selling agent and all the rest. Each deserves the study of all.

The family name—Crown Brand—identifies the entire output of The Viscose Company. It signifies yarns that are true to denier, absolutely uniform, even-dyeing, readily worked, perfectly suited to their various purposes. Yarns that retain their original character after washing and wear.

Specific information will be supplied promptly on request. We are always ready to confer with you on any problem of manufacture or promotion. Address inquiries to the New York Office—171 Madison Avenue. . . . The Viscose Company.

The 1928 *distribution of Crown Brand Rayon Yarns by uses*

[FIGURES ARE POUNDS]

Underwear	17,820,000	Silk Goods	7,020,000
Hosiery	9,720,000	Wool Goods	540,000
Other Knit Goods	2,160,000	Braids, Elastics, etc.	3,240,000
Cotton Goods	10,800,000	Miscellaneous	2,700,000

Estimated output for 1929—66,000,000 *lbs.*

It is significant that increasing numbers of manufacturers are so proud of results obtained with Crown Brand Rayon Yarns that they are using this crown on their own labels to identify their products. We restrict its use to high-type textiles and well styled quality merchandise. It is assurance of lasting merit.

MADE OF CROWN Rayon BRAND Yarns

marketed by Mr. Bishop. The motion has few parts and is simple in operation. It may be adjusted for travel full length of the rolls and for double travel on the ends of the rolls in keeping with the reversing or lifting shaft, thus providing even wear or the roll coverings.

In the accompanying diagram cam 1 may be seen mounted on the revolving shaft 2, which is driven by gearing from the drive shaft of the roving frame. Rod 3 is made to rise and fall by the action of cam 1. The L-shaped rocker arm 4, which is pivoted on the machine frame at 5, is in turn moved by rod 3, thus imparting a right and left traverse to the roving guide bar 6.

To adjust the length of the traverse, the cam 1 may be slid in either direction along the shaft 2, thus lengthening or shortening the operating horizontal part of the rocker arm 4. A slot in this part of the rocker arm automatically takes care of any change in the position of the cam and also permits the lifting rod 3 to rise and fall during the operation of the frame without deviating from a straight vertical line.

Rayon-Finishing Machine

Gives Soft Silken Finish on Both Sides of Fabric

A finishing machine for rayon or rayon-mixture goods which is capable of reducing the high gloss of rayon to a soft silken finish on both sides of the fabric has been developed by Joseph Eck & Son of Germany, and is being introduced to the American market by J. J. Krehbiel, 381 Fourth Ave., New York. It is claimed that with this machine any desired degree of softness or hardness may be imparted to the goods. Through the precise adjustment of an endless felt to the bed of the machine, in conjunction with an efficient after-treatment, it is said that the designs of figured fabrics can be shown in low relief on the backgrounds. The machine may be described in more detail as follows:

A heavy pressure roller consisting of high-grade steel is supported by a heavy frame. At a certain distance above this roll is located a so-called tension roller, which is adjustable in relation to the pressure roller for the purpose of adjusting the tension on an endless felt, passing over both. The tension roller rests in ball bearings to insure smooth operation. Both the tension roller and the pressure roller are easily removable, so that there is no difficulty in replacing the endless felt.

The pressure roll operates against the so-called jacket or shoe, which presses against the pressure roll. The pressure of the jacket can be accurately adjusted to the roll, so that the contact is uniform. The surface of this jacket consists of a highly polished plate of non-rusting metal and can easily be replaced in case of damage. The pressure roll and the jacket are steam-heated.

As a result of this arrangement it is possible to subject the material to a great amount of pressure and heat without obtaining the so-called ironing effect. The face of the goods is pressed against a felt, with the result that the goods are treated without disarranging the individual threads, because the felt travels with the goods.

Before the material reaches the machine, it is subjected to a steam treatment, and, if desirable, to a treatment with size, according to requirements. In order to maintain the finish imparted by this machine, the material is beamed with paper. This paper is preheated in order to permit the gradual cooling of the material, and thus increase the finish.

RECENT TEXTILE PATENTS

CUTTING textile fabrics, Apparatus for. 1,730,840. W. Berry, Wilmington, Del. Assigned to Joseph Bancroft & Sons Co., Wilmington, Del.

LACING tip. 1,730,809. J. R. Dennis, Providence, R. I. Assigned to International Braid Co., Providence, R. I.

NEEDLE. 1,730,546. W. D. VanDyke, Chattanooga, Tenn. Assigned to Kayser Hosiery Motor Mend Corp., Wilmington, Del.

NEEDLE, Knitting. 1,730,545. W. D. VanDyke, Chattanooga, Tenn. Assigned to Kayser Hosiery Motor Mend Corp., Wilmington, Del.

SHUTTLE. 1,730,931. F. Giehler, Chemnitz, Germany.

SHUTTLES, Tension-plate-adjusting screw for. 1,731,046. W. L. Hall, Philadelphia, Pa. Assigned to J. G. Billington Co., Phila., Pa.

SPOOL. 1,731,219. G. D. Atwood, Brooklyn, N. Y.

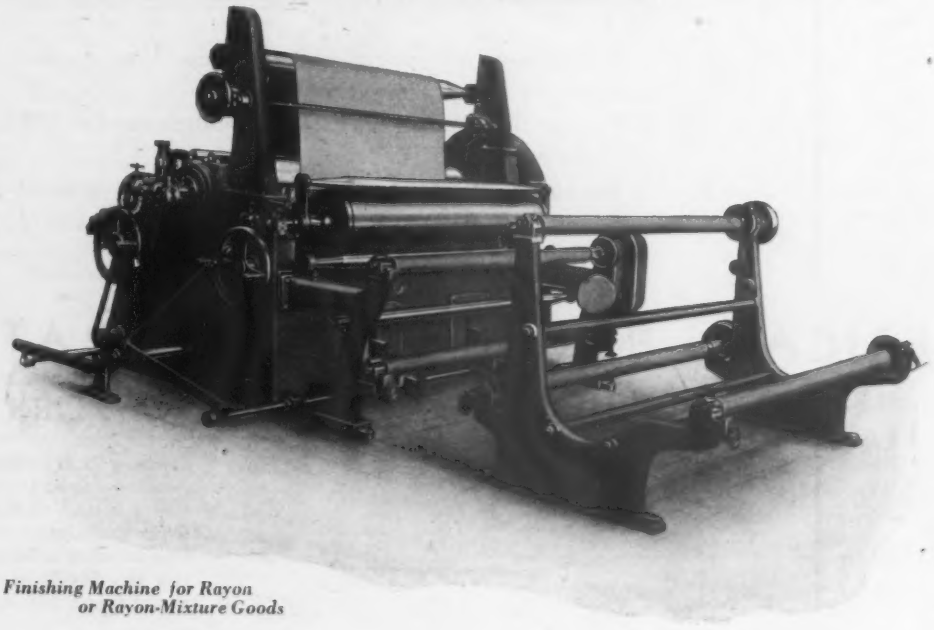
TEXTILE roll. 1,730,357. W. A. Carpenter, Hartsville, S. C. Assigned one-half to C. H. Campbell, Hartsville, S. C.

THREAD moistening apparatus. 1,730,950. B. Schmidt, Siegmar, and O. Hundt, Chemnitz, Germany.

MACHINE for winding tube-frame spools. 1,729,710. M. Collins, Cranesville, N. Y.

STOCKING. 1,729,653. K. Ginnane, Brooklyn, N. Y. Assigned to Gotham Silk Hosiery Co., Inc., New York, N. Y.

TEXTILE fabric structure. 1,730,263. J. C. Brooks, Paterson, N. J.

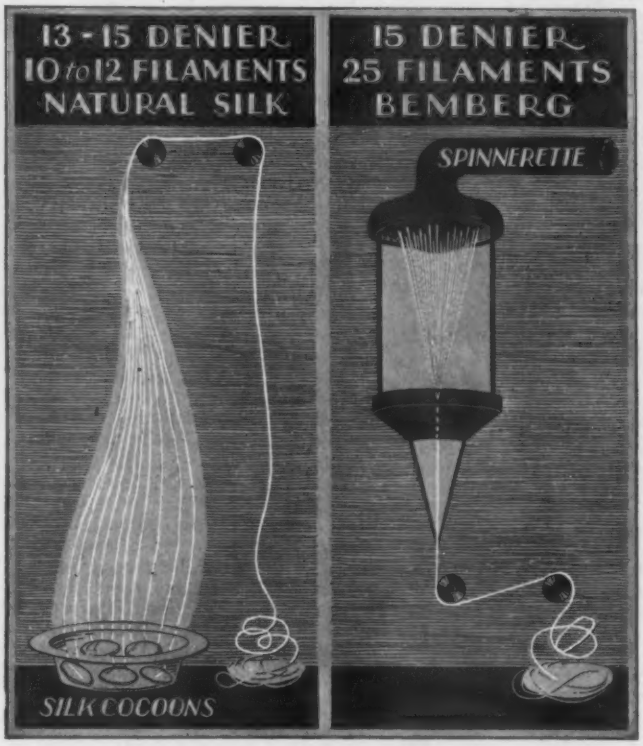


Finishing Machine for Rayon or Rayon-Mixture Goods

BEMBERG IS BEMBERG
SILK IS SILK

NOTE FILAMENT CONTENT

Bemberg
BRAND YARN



The unmatched basic strength of the Bemberg filaments makes possible the highest filament content of any man-made yarn. (15 denier Bemberg has 25 filaments, 150 denier has 112, 300 denier has 225).

This high filament content is responsible for the subdued luster of Bemberg which is natural to Bemberg without any delustering process.

AMERICAN BEMBERG CORPORATION

180 MADISON AVENUE, NEW YORK CITY

Bemberg is a trademark of the American Bemberg Corporation registered in the United States Patent Office to designate its yarn, made from dissolved cellulose fibres spun into very fine filaments by an exclusive stretch spinning process.

QUESTIONS AND ANSWERS

Service on Mill Problems and Correspondence with Readers

Peat Smoke Odor on Woolens

Technical Editor:

We understand that American chemists have been trying to impregnate domestic woolens with the odor of Scotch and Irish peat smoke. We should like to know if they have successfully isolated the element or elements which imitate it and are now trying to impregnate the cloth so that it will keep the odor for a certain length of time; or are merely working to synthesize the odor. We should like to know, also, whether the medium used is a liquid or a solid, and whether it is being manufactured for the trade. (6960)

While we cannot say whether the product mentioned is at present a commercial article, there should be no particular difficulty in duplicating the odor of peat smoke. The odor in Scotch and Irish fabrics resulting from peat smoke is evidently put there purposely, because there is no more possibility of the smoke odor being in a Scotch or Irish woolen mill than there is of its being in an American mill. In former times, when much weaving was done in the homes of the weavers, there was a chance of the goods being perfumed by any variety of local domestic odors.

Smoke odors are a complex mixture of what chemists call empyreumatic substances and are never due to any one simple substance. When organic matter burns, most of it is consumed and goes into the air as water and carbon dioxide; but especially when there is a shortage of air, the heat of the combustion decomposes some of the organic material, which goes off in the form of vapor mixed with particles of solids and globules of condensed liquids, and we call the phenomena smoke. Every vegetable substance yields a smoke having a different odor, and in the case of tobacco, even different varieties of the same plant give different qualities to the smoke. Smoke consists of solid carbon in a very fine state of dispersion (soot) and generally has traces of the following: creosote, wood alcohol, formaldehyde, acetic acid (pyroligneous acid), furfurol derivatives, and various aromatic oils beside tar, which is a mixture of many undertermined substances. Therefore, it can be readily seen that no chemist could hope to make a synthesis of such a mixture any more than he could make coal-tar, although he has a very good idea what it contains.

To duplicate the peat smoke odor, it would only be necessary to subject dry peat to destructive dry distillation in a closed retort at the proper temperature, and any research on the subject would be in determining the exact temperature to give the best results. The total distillate would probably be soluble in deodorized gasoline, such as the dry cleaners use and could be sprayed on the fabric, preferably on the back. It would last as long as the original and no longer, because odor depends on the slow evaporation or sublimation of the odorous substance, and in time it will all be gone, although some materials last longer than others.

* * *

Settings for Spooler Guides

Technical Editor:

Will you kindly give us the correct settings for spooler guides for 30s. 40s. and 50s cotton yarn? We are setting our guides on 30s at 15/1000 at present, but would like to know the practice in other mills. (6959)

The "correct" setting is relative, as there are several factors which enter into the adjustment of guides. The degree of cleanliness desired, the quality of the yarn, the matter of knots, are some of the points that have a bearing in determining the settings. However, the setting given for 30s — that is, 15/1000—is a good one for first-quality yarn, while for 40s, the setting might be either 12/1000 or 13/1000, and for 50s, 11/1000 or 12/1000.

* * *

Identification of Fiber

Technical Editor:

We are enclosing herewith a sample of a new fiber. Apparently it is not cotton or silk. Could you possibly tell us what it is? If so, we would appreciate it immensely. (6961)

Dr. Lyster H. Dewey, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, replies to this question as follows: This sample is ramie fiber, apparently prepared to be used as a substitute for wool or cotton. The fibers are shorter than many of those in ordinary ramie filasse that is degummed and bleached so as to leave the fibers their full length. Furthermore, the fiber in this sample is remarkably well degummed, so that it does not give the characteristic feel of ramie. It is softer than most specimens of degummed ramie fiber.

Recently several specimens of ramie fiber prepared for use as substitutes for wool or cotton have been brought to my attention, and it seems quite probable that this may offer one solution toward the utilization of ramie fiber if it can be spun successfully and with full satisfaction on either cotton or worsted spinning machines. I hope, however, that if it is so used it may be used under its honest and honorable name of ramie, for I regard it as a fiber having superior qualities and not in any sense as a cheap and undesirable substitute or adulterant of either wool or cotton. Ramie is a very strong fiber, and owing to its properties of absorbing moisture and giving it off very quickly and, furthermore, of neither shrinking nor stretching under different degrees of moisture, it ought to add valuable qualities to yarns in which it is used.

* * *

Formic Acid vs. Acetic Acid

Technical Editor:

Please let us know what quantity of formic acid, 90%. should be used in a dyebath to obtain the same result as would be obtained with 1 pound of acetic acid, 56%? (6962)

At first reading, this question seems so simple that any student of chemistry would only need to figure out the amount of formic acid which would be the equivalent of the given amount of acetic acid. A few years ago we would have done that and the dyer would have been disappointed in the results. Today, the question is more complicated and we cannot give the correct answer, but we can tell how it can be found out.

Suppose the acids are being used to break a gum-soap bath for silk skein dyeing; then one molecule or chemical equivalent of formic acid will do the same work as one molecule of acetic acid until all alkalinity in the bath is neutralized. As the bath goes on the

---

In this department, we undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. In this way answers can be given which will be of immediate technical value to the correspondent and to others in the same line. Inquiries pertaining to textile processes, machinery improvements, methods of management, the markets, etc., are especially invited as well as any legitimate discussion on the views expressed.

All inquiries must be accompanied by the name of the person inquiring, not for publication, but as an evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

If the question is not of general interest to textile readers and involves expensive investigation, a charge covering the cost may be made, of which the inquirer will be advised before any expense is incurred.

Letters expressing opinions or voicing criticism will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.

For prompt service, technical inquiries should be sent directly to the Technical Editor, TEXTILE WORLD, 1427 Statler Bldg., Boston, Mass.

acid side, conditions change and we find that acetic acid has less effect in increasing the acidity than the same chemical value in formic acid. This is because acetic acid has a very low ability to dissociate in water and furnish hydrogen ions, which cause the phenomena of acidity. Furthermore, the quantity of water present also has a great influence on the rate of dissociation. To calculate all this we would have to take into account numerous conditions, many of which are variable with the temperature, and the result would apply only to the particular case in question.

The problem, and similar ones involving degrees of acidity and alkalinity, are easily handled by measuring the hydrogen ion concentration. Sets may be purchased whereby using a number of sensitive indicators and comparison solutions it will be possible to measure exactly the acidity or alkalinity of a solution or dyebath. Even then you will find practically that acetic, formic, and sulphuric acids will cause dyebaths to exhaust differently, although you start with what are actually acidometric equivalents.

Practically, we would use about 6 oz. of 90% formic acid in place of 1 lb. of 56% acetic acid. This figure is not based on any scientific calculation, yet may serve as a basis for the dyer or purchasing agent.

* * *

Determining Nature of Stains in Crepe

Technical Editor:

I would be greatly obliged if you could inform me the best means to find out whether certain spots in woven crepe are rust spots or oil stains. What chemical could be applied to such spots to find out their nature? (6952)

If the spots are due to iron rust, this can easily be determined by touching them with a dilute solution of hydrochloric acid and adding a drop or two of potassium sulphocyanate solution. If the spots consist of iron this treatment will produce a blood-red coloration.

To test the spots to determine whether they are caused by oil, we would suggest that you try sponging or rubbing them with gasoline, carbon tetrachloride, or some similar organic solvent. If the spots consist of ordinary oil stains which might be picked up in the course of manufacturing the goods, this treatment with solvents should remove them. However, there are instances where certain kinds of oil or grease get on fabrics and become more or less oxidized, especially if they have been allowed to stand for some time, and it is almost impossible to completely remove them by any treatment with solvents. However, with the above tests, we feel that you should be able to determine quite definitely whether or not the spots in question are due to iron or oil.

Overplaids Are Uneven on Finished Cloth

Technical Editor:

I am sending a sample of goods in which you will find the overplaids uneven. They get narrower toward the sides of the cloth. Also, the fancy plaid filling yarns are not in a straight line across the cloth after finishing but are at a bias. Can you advise me the cause and remedy of these conditions? (6958)

This trouble is due to the layout and the stock used in the selvages. No doubt the inquirer has already noticed that after fulling, or during the fulling process, the listings are very tight and cause the pieces to roll up from selvage to selvage. This condition will cause uneven fulling as well as being the cause of the fancy filling plaids not lying straight, or at a bias. The sides will be narrow in this case and the only correction must be made in the loom.

* * *

Mixed Rayon Filling

Technical Editor:

We submit herewith a piece of cloth. Upon close examination you will note that part of it has a checkerboard effect, and we are interested to know the cause of same. The rayon used is 60-filament, and we are interested to know whether or not there was any mixed yarn used. (6955)

A careful analysis of the sample submitted shows a variation in the twist of the filling. The checkerboard effect is caused by using a filling that is very unevenly twisted. There is more twist in the part of the sample marked "old filling" than in the sample marked "new filling." The new filling is of a very uneven twist and it is this unevenness that is causing the checkerboard effect. If the new filling were evenly twisted but carried less twist than the old filling, this checkerboard effect would not be noticeable, but there would be more luster on that part of the cloth where the new filling was used, and the luster would be an even luster and not streaked, as is shown in the sample submitted. The selvages show that the fault is not caused by wrong tension in the shuttle.

Master Mechanics

(Continued from page 51)

in the line of purely mechanical things, but on the activities of all the manufacturing departments. His conferences with the other department heads show him to be capable of discussing intelligently the minutest details of organization, equipment, and operation. Not being too close to any department he is generally able to offer solutions of process problems which the respective department heads are unable to see because of their too intimate association with them.

It was said of the World War that those at home knew more about what was going on than the men who were fighting, because the latter were too close to the conflict to get a general view of activities. Overseers and superintendents are frequently too close to their problems to get a broad perspective of things.

Executive ability is a major requirement for the head of a great cotton mill's mechanical department. Also, specialized training in the fields of mechanical, civil, electrical, and construction engineering is practically necessary. In addition, it is highly desirable to know textile engineering, to have some ability as a draftsman, to know something of cost accounting, purchasing, storeroom management, safety engineering, and to have a grasp of general business practice.

Wide Range of Work

Someone may inquire why the master mechanic should be such a versatile man. To answer this we will mention a few of the activities that he must carry on. It would be practically impossible to make a full list. When mechanical breakdowns occur, the mechanical department must plan and effect the necessary repairs. When new construction is considered, it is called into consultation to decide upon and supervise the execution of plans. When electrical troubles develop, it must work out and apply the necessary corrective measures.

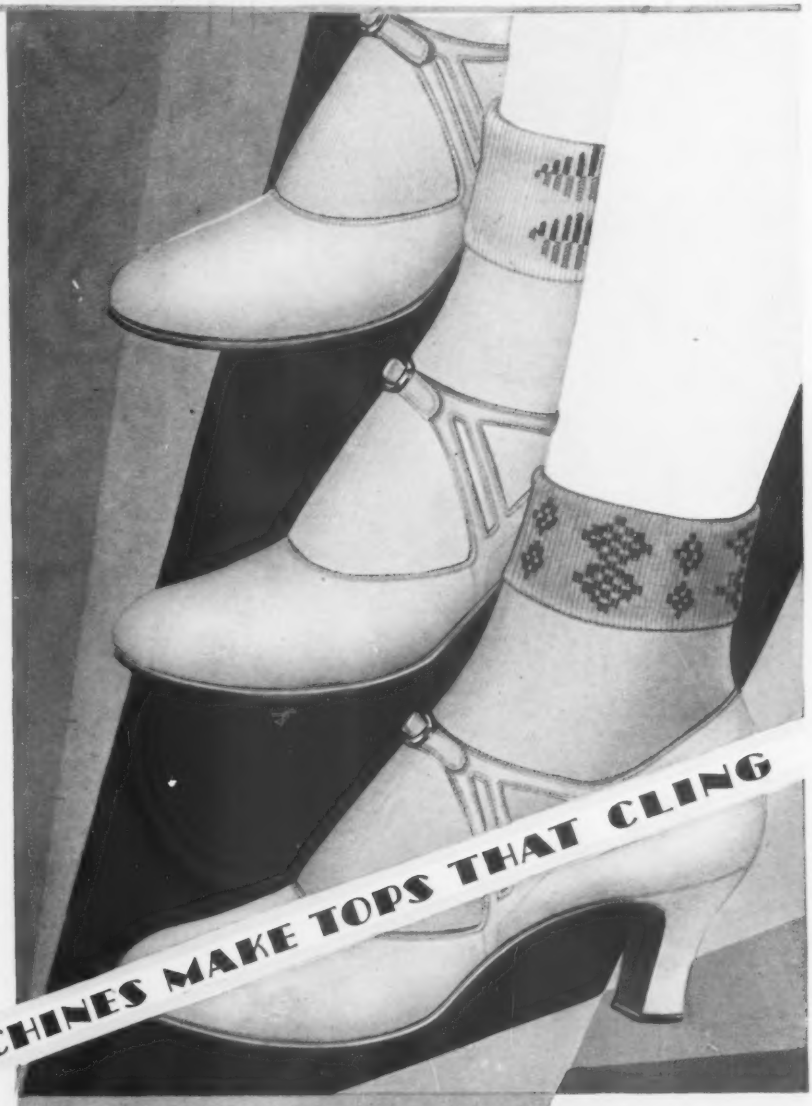
When a new house is to be built, or a change is to be made in plant buildings, it is expected to engineer and carry through the work.

When process machinery functions imperfectly or fails to function, the overseer calls on the mechanical department for help in locating and remedying the trouble. When changes in machinery layout become desirable, the management expects the mechanical department to work out plans and make drawings for the contemplated work. When it is to be decided whether to purchase certain parts or make them, it is expected to have cost information necessary for making an intelligent decision.

When certain specialized supplies and parts are to be purchased, and sources of supply must be found, the buyer calls upon the mechanical department for such information; also for terms, prices, etc.

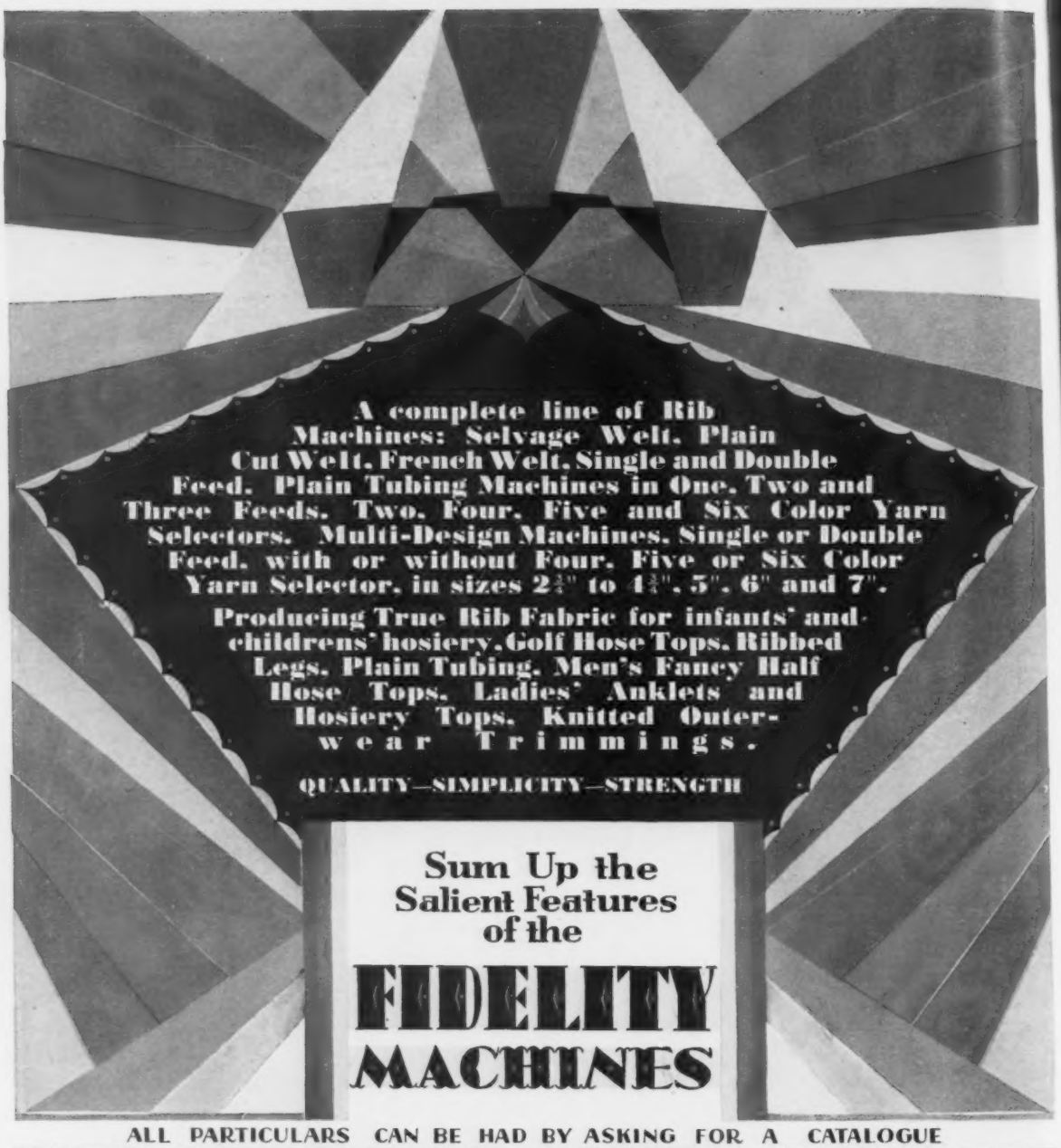
When the storeroom is established, or rearranged, the mechanical department is expected to know how to work out the details of bin arrangement, cataloging, etc. When there are hazards to the safety of employees and plant, the mechanical department must eliminate them. Finally, the mechanical department head must be available seven days in every week, 52 weeks in every year, for the purpose of handling emergencies such as fires, storm damages, plant breakdowns, etc.

SPORTSOX



FIDELITY MACHINES MAKE TOPS THAT CLING

FIDELITY MACHINE COMPANY
3908-18 FRANKFORD AVENUE
PHILADELPHIA, PENNA.


A complete line of Rib Machines: Selvage Welt. Plain Cut Welt. French Welt. Single and Double Feed. Plain Tubing Machines in One. Two and Three Feeds. Two. Four. Five and Six Color Yarn Selectors. Multi-Design Machines. Single or Double Feed. with or without Four. Five or Six Color Yarn Selector. in sizes 2¾" to 4¾". 5". 6" and 7".
Producing True Rib Fabric for infants' and childrens' hosiery. Golf Hose Tops. Ribbed Legs. Plain Tubing. Men's Fancy Half Hose Tops. Ladies' Anklets and Hosiery Tops. Knitted Outerwear Trimmings.
QUALITY—SIMPLICITY—STRENGTH
Sum Up the Salient Features of the
FIDELITY MACHINES

ALL PARTICULARS CAN BE HAD BY ASKING FOR A CATALOGUE

FIDELITY MACHINE COMPANY

Frankford Avenue : Philadelphia, Pa.

Manufacturers of

Knitting Machines — Creasing Machines — Braiding Machines

Representatives in

Great Britain	Australia	Canada	Finland	Denmark	Jugo-Slavia	Venezuela
France	Brazil	Japan	Germany	Poland	Bulgaria	Chile
Spain	Argentina	China	Austria	Belgium	Roumania	Greece
Italy	Mexico	Norway	Russia	Czecho-Slovakia	Uruguay	Colombia

MILL NEWS

COTTON

Pepperell Mfg. Co., Opelika, Ala., has awarded contract for wiring the addition to its plant to the Floyd Electric Co., of Opelika, at an approximate cost of $30,000.

Bemis Bro. Bag Co., Talladega, Ala., will soon start construction of a second unit to its new plant which has 32,000 spindles and 700 looms.

Willingham Cotton Mills, Macon, Ga., have awarded contract to R. H. Smalling & Co. for a brick and frame addition to the plant.

Anchor Duck Mills, Rome, Ga., have put on a night shift in the No. 2 spinning department. This plant manufactures duck, filter cloths, bags and rope, and has 29,000 spindles and a battery of 399 looms.

Capps Mfg. Co., Toccoa, Ga., has been acquired by the Toccoa Falls Light & Power Co.

Athol (Mass.) Mfg. Co., is erecting an addition 500x100 ft., where its pyroxylin compounds will be prepared. It is also enlarging its boiler room and will install a new boiler with automatic stoker.

Nonquitt Spinning Co., New Bedford, Mass., announces that arrangements are being made for the installation of 250 looms which will transform the plant into a weaving unit, but that full production is not anticipated much before Jan. 1.

Beaver Mills, North Adams, Mass., have sold the tire fabric plant to the North Adams Industrial Co., and it is understood that all equipment will be moved to the South.

Carl Stohn, Inc., Charlotte, N. C., is installing additional winding and quilling equipment.

Highland Cotton Mills, Inc., High Point, N. C., have awarded contract to the Carolina Steel & Iron Co., of Greensboro, N. C., for furnishing 110 tons of structural steel to be used in the addition to the plant.

John B. Stetson Co., Philadelphia, Pa., has filed plans for a one-story extension at 1745 North Fourth St.

Premier Thread Co., Pawtucket, R. I., has purchased the two-story brick building of the Pawtucket Hosiery Co., on Rand St. The dyeing, bleaching and finishing equipment already has been moved to the hosiery mill and as soon as the rest of the equipment is transferred all manufacturing will be under one roof.

Hermitage Cotton Mills, Camden, S. C., are now concentrating on making surgical gauze. They have just completed the installation of new machinery for the manufacture of this product.

Guadalupe Valley Cotton Mills, Cuero, Texas, have installed new machinery at a cost of approximately $13,000 which will greatly add to the plant's production of cotton duck.

Halifax Cotton Mills, in the West End of South Boston, Va., was a sufferer from floods occasioned by the recent high waters, which got into the basement of the bleachery department, causing a shutdown of that department for several days. The entire plant, which was working night and day, closed down for necessary repairs.

J. & J. Cash, Inc., Belleville, Ont., Can., manufacturers of woven marks for clothing, linen, etc., and also woven labels, ribbons, etc., have just completed a large addition to their plant. The Canadian plant is a branch of the United States plant at South Norwalk, Conn.

WOOL

Yantic (Conn.) Mills, are running out stock preparatory to closing indefinitely. This is a branch of the American Woolen Co., and officials of that company state that the closing is due to the poor demand for woolens of the character made there.

Taft Woolen Co., Bellingham, Mass., has work under way for a mill unit. The Fiske Carter Construction Co., Worcester, Mass., general contractors, has awarded the following sub-contracts: Steel, Eastern Bridge & Structure Co., Worcester; reinforcing steel, Edward A. Tucker Co., Boston; iron, Clinton (Mass.) Foundry Co.

Chase Mills of American Woolen Co., Webster, Mass., are running out stock preparatory to a shut-down, that, according to officials of the company, will be of indefinite duration.

Princeton Worsted Mill, Inc., Trenton, N. J., is running on a capacity schedule and will hold to this basis for an indefinite period, giving employment to a full working force.

Globe Mills, of American Woolen Co., Utica, N. Y., are preparing to shut down for an indefinite period.

Hughes & Ray, Newland, N. C., are interested in the establishment of a local woolen mill for the manufacture of blankets, and plan to make machinery purchases at an early date.

Cleveland (Ohio) Worsted Mills Co. is running on a capacity schedule, and expects to continue on this basis for an indefinite period.

F. A. Bochmann & Co., Inc., Philadelphia, Pa., one of the largest manufacturers of worsted goods in the section, are expanding their men's wear lines and intend to offer a wider variety of these than in previous years. They state they are experiencing a better season in dress goods than last year but are also going to offer a wider range of men's wear and to operate a larger proportion of their looms on these fabrics than in the past. Heretofore the company has been known principally as a maker of dress goods. Harry Lonsdale is treasurer and superintendent.

Cambria Carpet Co., Philadelphia, Pa., formerly located at 1528 N. Randolph St., manufacturer of carpets, has purchased the machinery and equipment of the **Model Mills Co.**, Ontario and I Sts., and has leased the space formerly occupied by them. The Model Mills Co., had approximately 53 looms and manufactured wilton carpets and rugs. The Cambria Carpet Co., now own the Model Mills Co., and H. G. Fetterolf Co., lines of carpets which it is selling to the trade, in addition to its own lines. The plant at 1528 N. Randolph St., will be moved to the Model Mills Co., address at Ontario and I Sts. John H. Davidson is president of the firm.

John Culbertson & Sons, Philadelphia, Pa., who have been devoting their attention to the manufacture of automobile cloths during recent years, will return to the manufacture of better grade worsteds for suitings, in addition to their line of tropicals. Changes are also being made in machinery and equipment.

John G. Stewart, Philadelphia. Although no announcement has been made, it is reported that Mr. Stewart, formerly treasurer and general manager, Brighton Worsted Co., Inc., Philadelphia, Pa., is considering starting the manufacture of worsted fabrics on his own account.

Chas. J. Webb & Sons Co., Inc., Philadelphia, Pa. Contract has been awarded by this concern for the erection of a manufacturing building to be built on a tract on the south side of Erie Ave., D St. and the Pennsylvania R.R. It will be of brick, concrete and steel, two and three stories high; on a site 200x319 ft., and will contain 120,000 sq.ft. of floor space.

Tauber Woolen Mills, Spartanburg, Pa., are said to be planning a new one-story mill addition on Mechanic St., reported to cost more than $40,000, with equipment.

Chippewa Falls (Wis.) Woolen Mill Co., has awarded a general contract to the Tschopp-Durch-Camastral Co., 403 North High St., Chippewa Falls, for a third story addition to mill, 30x70 ft., to cost about $25,000, with equipment.

KNIT

***Real Silk Hosiery Mills**, Indianapolis, Ind., are having 100 knitting machines installed in the new five-story addition. Forty German workmen were brought to this country on temporary passports, for installation of the machines, which when placed in full operation, will double the company's output. At a recent meeting of the managers of the company, it was decided to have immediate establishment of headquarters in Greensboro, N. C., for a district which includes North Carolina, South Carolina, Virginia, Florida and a part of Georgia. Porter M. Farrell, president and general manager of the company, was in charge of the meeting.

Rollins Hosiery Mills, Inc., Des Moines, Iowa, have plans under way for a one-story brick and steel addition, sawtooth roof type, 119x165 ft., reported to cost close to $100,000, with equipment. Erection is scheduled to begin in November.

Atlantic Silk Hosiery Co., Paterson, N. J., has acquired a tract of land at Butler, N. J., and will soon have plans

*Indicates previous mention of project.

MODES CHANGE BUT QUALITY REMAINS

The Scope of National SERVICE

Piece Dyeing
Weighting
Finishing
Roller and Block Printing
Moire
Hosiery
Rayon and Celanese
Ribbons
Skein Silk
Knitted Fabrics
Mixed Goods

We recommend the registration of original designs with the Silk Association of America, Inc.

IT is a far cry from crinolines to cretonnes, from draped gowns to knee-length skirts. But though modes change the demand for quality never changes.

Manufacturers who use National service in Dyeing, Weighting, Finishing and Printing are always abreast of this demand. For National operations result in a remarkable degree of excellence.

The prestige of National has been built like a mosaic, year by year of successful service over a long period adding to this reputation of doing good work.

You can use National service to profit... and National responsibility relieves you of worry.

NATIONAL SILK DYEING COMPANY

5 Colt St., Paterson, N. J. *New York Salesroom:* 102 Madison Ave. *Works:* Paterson, N. J.; East Paterson, N. J.; Allentown, Pa.; Williamsport, Pa. *Canadian Branch:* Dominion Silk Dyeing and Finishing Co., Limited, Drummondville, P. Q., Can. *Salesrooms:* Toronto, Montreal.

NATIONAL

drawn for a new branch mill, reported to cost close to $70,000, with equipment. It is proposed to have the unit ready for occupancy early in the spring.

A. H. Rogers & Co., Fonda, N. Y., are planning to move their silk underwear business to Gloversville in the plant recently purchased from the **Normandie Silk Co.** The new mill will provide greater manufacturing facilities for the rapidly expanding business.

Union Mills, St. Johnsville, N. Y., have sold property on Bridge Street to Joseph Palombi, according to deed filed with county clerk.

Terry Hosiery Mills, High Point, N. C., are now operating 30 Scott & Williams spiral knitting machines, with four Rome dyeing machines. The plant finishes and dyes its own products.

Melrose Knitting Mill Co., Raleigh, N. C., has a daily production of 250 dozen garments, the equipment including 30 Nye & Tredick knitting machines and 68 sewing machines. All departments are busy preparing for the winter trade of men's heavy knitted underwear. This plant also has a dye house, which is equipped with General Electric and Westinghouse motors.

Wilkes Hosiery Mills Co., North Wilkesboro, N. C., has let contract to Foster & Allen, of North Wilkesboro, for the erection of an additional building to the plant, two stories high, 60x100 ft. This is the second addition the company has added this year.

Ellis Silk Hosiery Co., Charlotte, N. C., will have five full-fashioned machines on full-time day and night production within the next week or ten days, it is reported. The company has received 21 machines and nine additional will be delivered as soon as the first lot has been installed. Heating equipment is being installed and it is planned to have the mill in full operation by Jan. 1, 1930.

Superior Knitting Mills, Philadelphia, Pa., have awarded a general contract to the George Kessler Contracting Co., 1733 North Marvine St., for a two-story and basement mill on Ridge Ave., near Indiana Ave., 75x190 ft., to cost about $45,000, with equipment. Leopold Hauf and R. N. Dippy, 1600 Walnut St., are architects.

Martha Silk Hosiery Mills, Philadelphia, Pa. Charter of incorporation has been granted to a concern of this name to manufacture hosiery, having a capital of $50,000. Incorporators mentioned in application were Ray Kane, 3361 Mascher St., treasurer; Frank K. and Martha Kalkosinski. Contract was recently awarded for the erection of a plant for the firm to be located at Hegeman St., east of Sanger.

Woeher & Thomas, Inc., Philadelphia, Pa. Charter has been granted this company, having a capital of $50,000. Incorporators mentioned in application were Joseph Thomas, 4956 Gransback St., treasurer, J. A. R. Woeher and Elfrieda Thomas. They will manufacture hosiery and knit goods, according to charter.

*Indicates previous mention of project.

Empire Knitting Mills, Philadelphia, Pa., manufacturers of sweaters, have leased space in a building located at 1107-11 Market St., giving them 13,000 sq.ft., of floor space. They plan to move their present machinery and equipment to the new location before the first of next year, giving them larger quarters than they now occupy. They also plan to install new equipment.

Phoenixville (Pa.) Hosiery Mills, are completing plans and will soon begin work on new addition, 45x160 ft., brick, steel and concrete, including new dyehouse and boiler plant, estimated to cost $100,000, with equipment. Clarence E. Wunder, 1520 Locust St., Philadelphia, Pa., is architect.

Temple (Pa.) Full Fashioned Hosiery Co. began operations this week in its new mill. Additional machinery will soon be installed. Wilhelm Dojan, 35 South Tenth St., Reading, Pa., is head of the company.

***Cadet Knitting Co.,** Columbia, Tenn., expects to be in operation by Jan. 1, as the buildings are nearly completed and the machinery is expected to arrive within a few weeks, according to W. M. Pepper, Jr., manager of the plant.

***Sure-Wear Hosiery Mills, Inc.,** Brookneal, Va., are nearing completion. Fifteen knitting machines for half hose have been installed and these, with a full force of workers, are expected to begin work some time this week. Additional machines will be added as rapidly as workers can be instructed. The dyeing and finishing department will not open until a week later than the other departments.

***Olympia (Wash.) Knitting Mills, Inc.,** have filed plans for a two-story, steel and reinforced-concrete addition, 50x130 ft., to cost about $30,000, and will proceed with superstructure at once. Unit will have wood floors and steel sash. Joseph H. Wohleb, Chambers Bldg., is architect.

Model Knitting Mills, Ltd., Toronto, Ont., Can., are receiving bids until Nov. 1, on a seven-story loft building they will erect at 179 John St. East side, north of Queen St., Toronto. Plans call for a loft building, 7 stories and basement, mill and brick construction, with stone trim. The architect is Benjamin Swartz, 336 Dundas St. West, Toronto.

SILK

Rieback-Mandell Co., Brewton, Ala. Announcement has been made that the new silk mill will soon be ready to begin operations. Eighty or more of the looms that are being installed are equipped electrically.

William Skinner & Sons, Holyoke, Mass., shut down for 10 days beginning Oct. 10.

B. & G. Silk Co., Paterson, N. J., is increasing production at its mill on Clinton St., and will continue on the advanced schedule for a number of weeks to come.

Colonial Throwing Co., Paterson, N. J., has adopted a night shift for its increased capacity schedule, with working force engaging from 5 p.m. to 10 p.m.

Luxite Broad Silk Co., Paterson, N. J., is arranging for increased capacity at its mill, and will operate a night shift at an early date.

Trenton Silk Co., Paterson, N. J., is increasing production at its mill and adding to the working force. The advanced schedule will be continued for an indefinite period.

Roma Silk Corp., Paterson, N. J., recently organized with a capital of $100,000, to operate a local broadsilk mill, will be represented by Isadore Zorio, 12 Van Houten St., Paterson, one of the incorporators. Joseph Macri, Paterson, will be an official of the new company.

Tirrell Bros. Silk Corp., Milford, N. J., has adopted a 4-day week operating schedule, and the curtailed basis is expected to prevail for some weeks to come.

Kingsboro Silk Mills, Gloversville, N. Y., have purchased the idle plant of the **Normandie Silk Co.** and the plant will again be in full operation within a few weeks. The Normandie plant was recently sold to Charles King following long financial entanglements.

Middletown (N. Y.) Throwing Co., Inc., has filed notice of company dissolution under State laws.

Southern Silk Mills, Inc., Kernersville, N. C. Construction work is progressing rapidly on the new plant. The most modern equipment has been purchased and will be shipped as soon as the new building is ready for occupancy.

Ix Mill, Westerly, R. I., formerly New England Silk Co., is installing new equipment and employing additional operatives. Prior to the taking over by Alexander F. Ix, the mill had been idle for a long period. When installation of the machinery is completed, it is planned to have 200 employes on day and night shifts.

DYE, BLEACH & FINISH

General Silk Dyeing Co., of New Bedford, Mass., is planning to start machine printing on Nov. 1, adding to the processes of bleaching, tin weighting, dyeing and finishing. A subsidiary of the General Silk Corp., the plant is located in the old Oneko woolen mill, and will soon be employing a large number of men and women operatives in New Bedford's newest industry.

Rayon Textile Corp., Paterson, N. J., rayon processor, is planning for enlarged output at its mill on Courtland St., and proposes to establish a night shift, in addition to regular day force, at an early date.

Ray-Ser Dyeing Co., of Chattanooga, Tenn., is installing winding and dyeing equipment to double the present capacity of the plant. This addition is expected to be completed by the middle of this month.

Rock Hill (S. C.) Printing & Finishing Co., will use six residences for their operatives which are being constructed by the Mount Gallant Ice & Coal Co. These residences are to cost about $4,000 each and will be located in the Willowbrook section of Rock Hill.

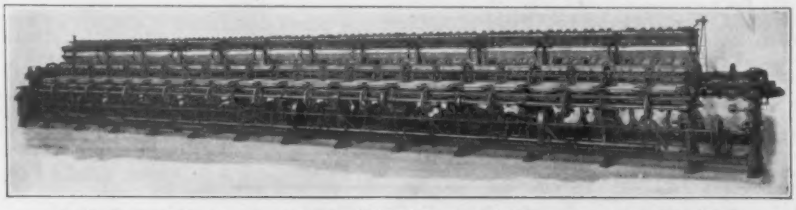
This is Headquarters for Complete Information

about the Full-Fashioned Hosiery Business

This is headquarters for every conceivable kind of information about the production of full-fashioned hosiery. All kinds of people come to us for facts concerning the industry. Manufacturers ask us about mechanical technicalities. Men thinking of engaging in the manufacture of hosiery question us as to locations, buildings, equipment, help, distribution channels, stability, the point of view of retailers and the kind of trade that should be sought.

You can get all this information—and more—right here, down to the last detail. It will be accurate, complete. The facts come out of twenty-five years of very close contact with every phase of the full-fashioned hosiery business—and the making of knitting-machinery accepted as the best obtainable. But it is not enough that we make the finest machines of their kind. The hosiery manufacturer needs, more than ever, exact and reliable knowledge of his industry—from every slant. Our aim is to furnish every fact he needs and we do. Write for full information about any question in your mind.

TEXTILE MACHINE WORKS—READING, PENNA.



A Reading 24 Section Legger. The full-fashioned knitting machine of 1929. Capable of producing the maximum number of "firsts" at the lowest possible operating and maintenance costs. Modernize your obsolete equipment with Readings.

See also CONSOLIDATED TEXTILE CATALOG

The "READING" Full-Fashioned Knitting Machine

TEXTILE WORLD ANALYST

No Sustained Rise in Silks Probable This Year

Market Irregularity, with Weakness Predominant, Is Forecast by Dr. Haney

ANOTHER uncertainty concerning the silk situation has been removed this month, namely, that concerning size of the summer and autumn cocoon crops. These are now known to be considerably larger than last year. At the same time, September figures show us that domestic "deliveries" of Japanese silk were only little larger than they were reported to be at this time a year ago.

The struggle between the manufacturers and the sellers of raw silk continues. Manufacturers appear to be holding their own, in that they are able to prevent silk prices from making sustained advances. It now seems almost certain that buying will practically cease at $5.20, will become a little freer at $5, and expand considerably at $4.90 or thereabout. Thus silk prices swing up and down. (Meanwhile, rayon continues to be substituted to an increasing extent in the cheaper lines.)

Factors of Strength

The following are among the conditions tending to support the silk market:

(1) **Relatively high cocoon prices.** Japanese cocoons are quoted relatively high compared with the raw silk market.

(2) **Some improvement in goods sales.** Wholesale silk sales at New York, and wholesale dry goods sales, increased somewhat more than usual in August.

(3) **Spindle activity higher.**

(4) **Hosiery manufacturers show increased interest,** and hosiery yarns are firm.

(5) **Reduced pressure of cheap fall silks.** It is reported that cheap silks bought for fall business have been largely cleared up, allowing stronger prices for spring goods.

(6) **Increased department store sales of women's hosiery** (but lower prices).

(7) **New styles.** Possibly the ultimate acceptance of the new styles may increase buying by cutters, and their adoption would mean a larger total consumption.

(8) **Technical position improved.** The speculative market held well in the face of bearish news.

SUMMARY—SILK

Silk supplies are ample and the statistical position easier.

Goods failed to respond to the September advance.

Irregularity, with weakness predominant, is the indication.

Factors of Weakness

Conditions tending to depress the silk market are:

(1) **Summer and autumn cocoon crops in Japan** reported to be more than 6% above last year.

(2) **Easy supply situation in Japan,** with arrivals above last year, and stocks increasing.

(3) **Cheaper Cantons** and increased consumption of China silk (largely due to drop in silver exchange).

(4) **Total visible supply increased in September,** and was large.

(5) **Deliveries decline;** some mills reported to be curtailing.

(6) **Deliveries out of line** with machinery activity, indicating actual consumption to be less than estimated.

(7) **Loom activity out of line** with wholesale sales of silks.

(8) **Goods prices fail to reflect the September advance in raw silk;** very narrow manufacturers' replacement margins; manufacturers resist price advances as strongly as ever.

(9) **Uncertainty as to styles.**

(10) **Unsatisfactory movement of prints** and the cheaper fall fabrics; some reports indicate manufacturers and merchants still have considerable stocks of fall and winter merchandise.

(11) **Department store sales of silks and velvets** in August were 9.8% under a year ago.

(12) **Cheaper wool** and increased consumption of wool fabrics.

In view of the foregoing points, it seems improbable that any sustained advance in silk prices can take place this year.

Statistical Position

Probably the most notable point in the September silk figures was the heavy volume of imports. The figure for September was one of the largest for the month on record, being nearly 60,000 bales. This shows that more attention must be paid to the in-transit figures. If these do not show up in the imports of one month, they will the next. September imports were 112.6% of the esti-

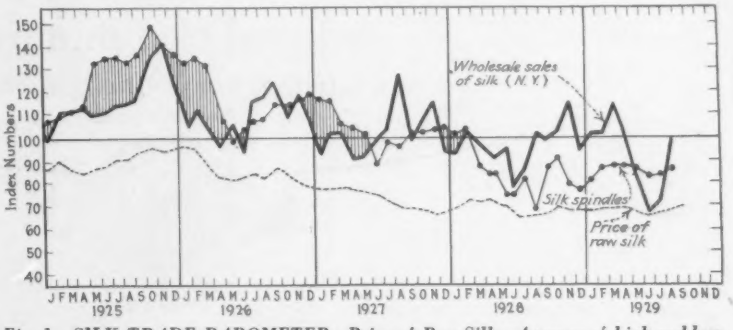
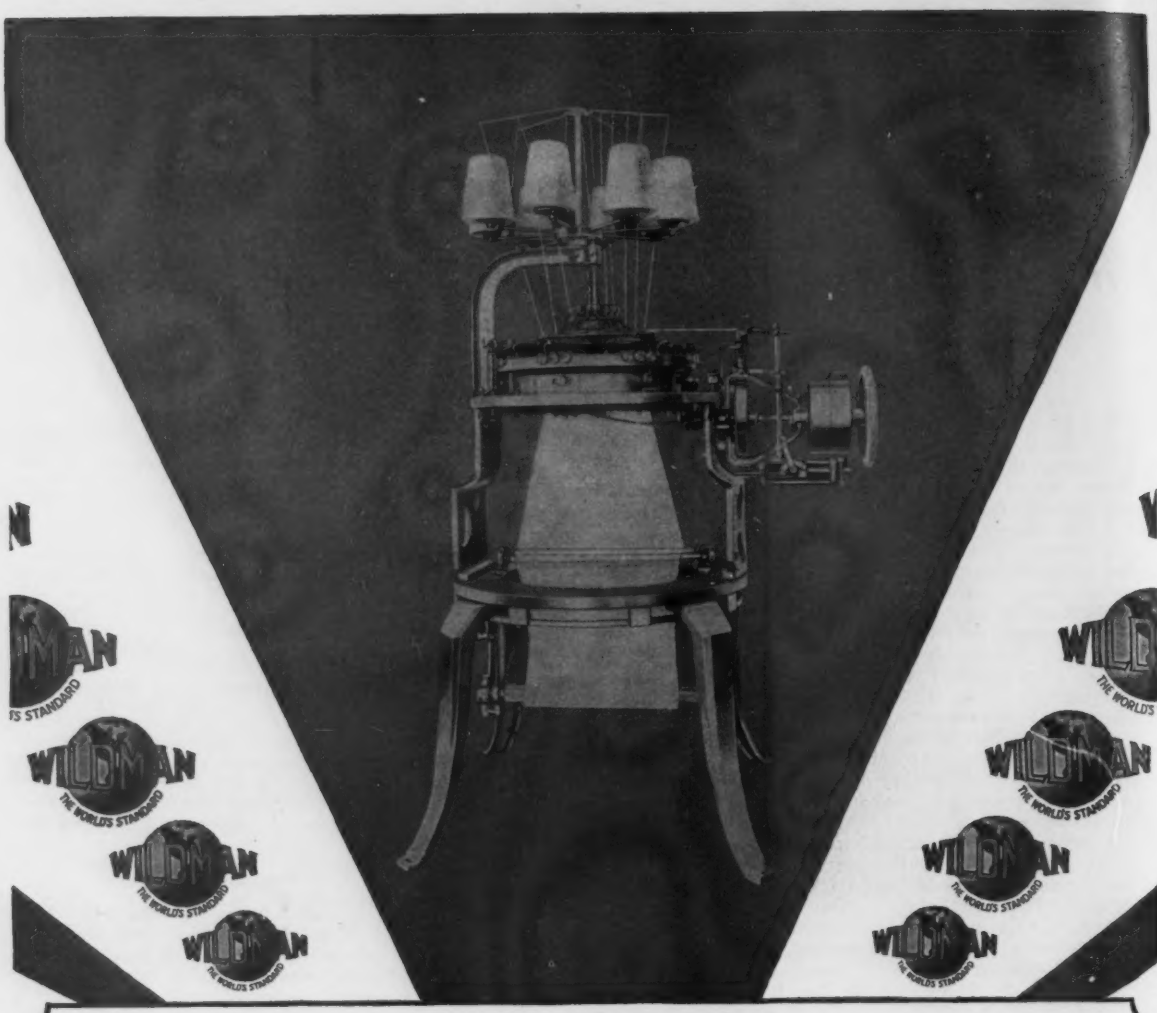

Index Numbers
150
140
130
120
110
100
90
80
70
60
50
40
Wholesale sales of silk (N.Y.)
Silk spindles
Price of raw silk
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
1929

Fig. 1. SILK TRADE BAROMETER—Price of Raw Silk—Average of high and low Thursday prices of Crack Double Ex. (Journal of Commerce). Spindles—Per cent of available machine hours operated (Silk Association of America). Wholesale sales of silk (N. Y.) adjusted for seasonal variation (N. Y. Federal Reserve Bank). Average 1922-1925=100 for all indexes.

The analysis and forecast of Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week.

The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.



For Rayon—operates at lower cost with less needle breakage—no raveling waste—imperfections reduced to a minimum

WILDMAN MANUFACTURING CO.
Norristown, Pa.

WILDMAN
THE WORLD'S STANDARD

WILDMAN
SPRING NEEDLE BODY MACHINE

mated deliveries for the month,—the largest percentage for the month since 1926.

Stocks at New York increased quite sharply and, at 55,104 bales, have been exceeded in few Septembers. Considering the season, stocks are not excessive in comparison with estimated deliveries, but they do show a comfortable supply, especially in view of the large quantity in transit and the continued good volume of shipments from Japan. (Over 39,000 bales were reported in transit at the end of September, which is 13,400 bales more than a year ago.)

As stocks increased about 6,700 bales during September, the estimated deliveries necessarily decreased. At 53,274 bales, they showed a reduction of more than 6,400 bales, a somewhat larger decrease than usual.

It is notable that deliveries of Japanese silk were only about 1,000 bales above a year ago, while the imports of Japanese silk exceeded those of a year ago by more than 8,400 bales.

Another point of note is the steady increase in imports since March, which, with the talk of some mill curtailment, suggests a further accumulation of stocks at New York.

The total visible supply of silk increased during September, amounting to more than 129,000 bales at the end of the month. This compares with 112,000 bales a year ago.

Yokohama stocks at the end of September had increased to 27,000 bales, or a little more than a year ago. The average of the combined stocks at New York and Yokohama during the last three months has run at the rate of 21% above the average of recent years. This compares with a rate of domestic machinery activity which is only about 10% above average. As both figures allow for seasonal conditions, we may say that the supply of silk, while not so excessive as in 1927 and 1928, is decidedly comfortable from the consumer's standpoint

Price Movement Inconclusive

Silk prices rose during most of September and Cracks XX averaged about $5.28, compared with $5.12 in August. The rise was chiefly seasonal, but was apparently stimulated by the bullish construction put on the Silk Association's August figures and rising Yen exchange. There were waves of buying in the speculative market on Sept. 7 and 13. The move culminated about Sept. 26, when there was also heavy trading. The market proved to have become overbought and a sharp reaction occurred. The Saiyu lost all its gain, closing the month at the same price at which it began, namely, 1,320 Yen per bale. The New York market held some of the gain, but this may be explained on the ground of the higher Yen exchange rate.

As we anticipated, the decline increased in October following the bearish figures issued by the Silk Association, carrying Cracks XX down to $5 and Saiyu to 1,280 Yen.

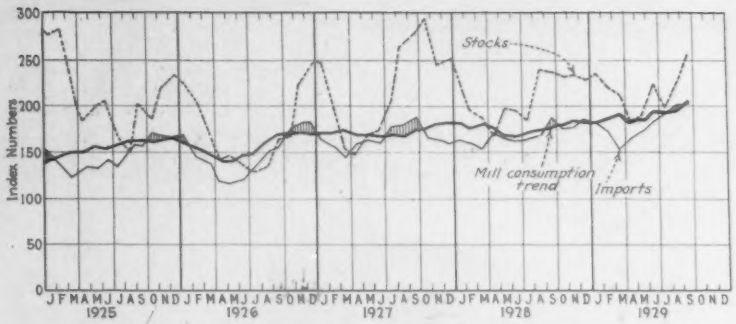

300
250
200
150
100
50
0
Index Numbers
Stocks
Mill consumption trend
Imports
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
1929

Fig. 2. STATISTICAL POSITION OF RAW SILK—Stocks of Raw Silk, Bales in storage at end of month. Average 1921=100 (Silk Association of America). Imports, Pounds. Average 1921=100. Three months' moving average (Dept. of Commerce). Last month estimated by converting each item of Silk Association figures from bales to pounds and then applying the per cent increase to preceding month. Factory Consumption Trend, Deliveries—Bales, average 1921=100. Five months' moving average (Silk Association of America).

Wholesale silk sales rose more than usual in August and were nearly 100% of the average for the years 1922-1928, allowing for seasonal variation. This compares with 102.3 a year ago. Spindle activity also gained a little in August, when it was 86% of the average for the same years as compared with 68% of the average last year.

These developments were favorable and helped the September rise. They at least indicate that spindle activity is maintained at a level that is not too high in comparison with the sales of goods. But the situation is not any stronger in this respect than it was in the three years 1926, 1927, and 1928. We must, therefore, again conclude that there is nothing to indicate a sustained price advance.

On the other hand, we find that August "deliveries" had risen so high in comparison with the activity of both spindles and looms that it indicates that the *actual consumption* was not so great as appeared to be the case. In fact, there has been an increased accumulation of stocks at New York as reflected in September figures. The quantity in transit is large, and so, of course, is the total visible supply. To this condition, we must add the uncertain and unsatisfactory state of the goods market which is still afflicted with over-production and hampered by doubts as to style trends.

Our conclusion is that silk is already so cheap that no large decline seems possible. But it is equally difficult to see why it should advance. We must therefore, expect irregularity, with weakness predominant during the next month or two.

Canadian Production and Imports of Cotton Manufacturers Increase

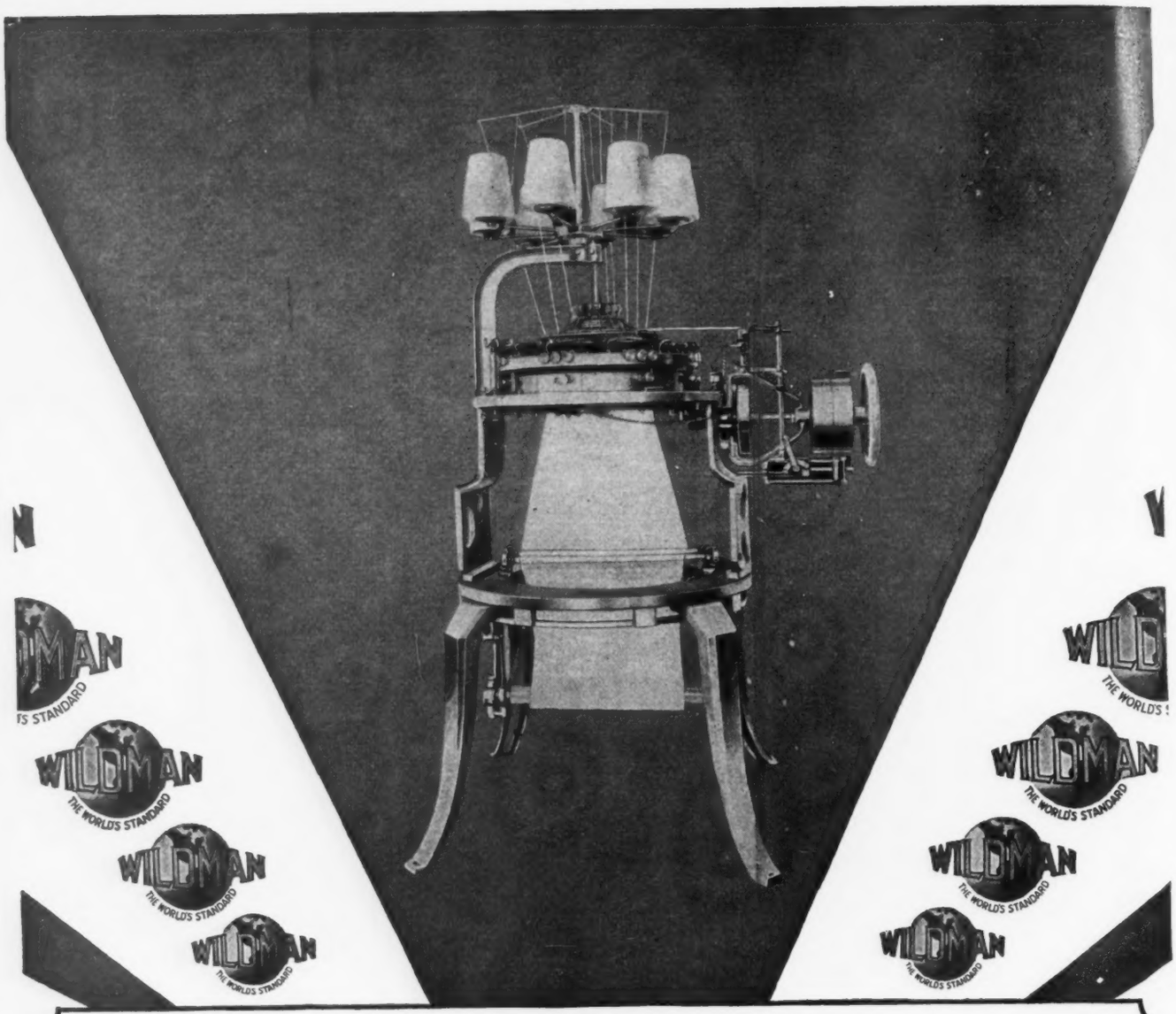
In the calendar year 1928, Canada purchased cotton semi-manufactures and manufactures produced in the United States, to the value of $21,149,000, according to the Textile Division, Department of Commerce. The Philippines imported $14,070,000 worth, sales to Cuba totaled $12,655,000 and to Argentina, $11,873,000.

During 1928, shipments of lint cotton from the United States to Canada amounted to 234,103 running bales, valued at $24,219,000. From the standpoint of value, Canada stood in eighth place in 1928, as an export market for American raw cotton, although its purchases were only a little more than one-tenth of the value of shipments to Germany and to the United Kingdom, which took $217,891,000 and $211,399,000 worth respectively.

Engineering Course at Lowell Textile Institute Revised

Professor Herbert J. Ball of Lowell Textile Institute, Lowell, Mass., announces that several important changes in his textile engineering course have been made during the summer. There has been a consolidation of subjects to enable the student to concentrate at one time on a group of related matters, with the result that he will gain a better knowledge of the subjects studied. The consolidation leaves only eight subjects to be carried by the student in one term, as compared with thirteen formerly carried. This change reduces the number of examinations necessary.

All the important textile and mechanical engineering subjects have been retained. New textile subjects—for example, new courses in textile design and manufacturing—have been added. A new heat-engineering course includes, besides a study of steam plants, the applications of steam to dyeing and other textile processes, reclaiming waste heat from processes, operation of internal combustion engines, and principles of refrigeration. The study of foreign languages has been made optional. A new advanced mechanism course consists of a technical study and analysis of the principal mechanisms of the loom and other complex textile machines. A new course in dye laboratory will later be included in Professor Ball's course.



For Rayon—operates at lower cost with less needle breakage—no raveling waste—imperfections reduced to a minimum

WILDMAN MANUFACTURING CO.
Norristown, Pa.

WILDMAN
SPRING NEEDLE BODY MACHINE

mated deliveries for the month,—the largest percentage for the month since 1926.

Stocks at New York increased quite sharply and, at 55,104 bales, have been exceeded in few Septembers. Considering the season, stocks are not excessive in comparison with estimated deliveries, but they do show a comfortable supply, especially in view of the large quantity in transit and the continued good volume of shipments from Japan. (Over 39,000 bales were reported in transit at the end of September, which is 13,400 bales more than a year ago.)

As stocks increased about 6,700 bales during September, the estimated deliveries necessarily decreased. At 53,274 bales, they showed a reduction of more than 6,400 bales, a somewhat larger decrease than usual.

It is notable that deliveries of Japanese silk were only about 1,000 bales above a year ago, while the imports of Japanese silk exceeded those of a year ago by more than 8,400 bales.

Another point of note is the steady increase in imports since March, which, with the talk of some mill curtailment, suggests a further accumulation of stocks at New York.

The total visible supply of silk increased during September, amounting to more than 129,000 bales at the end of the month. This compares with 112,000 bales a year ago.

Yokohama stocks at the end of September had increased to 27,000 bales, or a little more than a year ago. The average of the combined stocks at New York and Yokohama during the last three months has run at the rate of 21% above the average of recent years. This compares with a rate of domestic machinery activity which is only about 10% above average. As both figures allow for seasonal conditions, we may say that the supply of silk, while not so excessive as in 1927 and 1928, is decidedly comfortable from the consumer's standpoint

Price Movement Inconclusive

Silk prices rose during most of September and Cracks XX averaged about $5.28, compared with $5.12 in August. The rise was chiefly seasonal, but was apparently stimulated by the bullish construction put on the Silk Association's August figures and rising Yen exchange. There were waves of buying in the speculative market on Sept. 7 and 13. The move culminated about Sept. 26, when there was also heavy trading. The market proved to have become overbought and a sharp reaction occurred. The Saiyu lost all its gain, closing the month at the same price at which it began, namely, 1,320 Yen per bale. The New York market held some of the gain, but this may be explained on the ground of the higher Yen exchange rate.

As we anticipated, the decline increased in October following the bearish figures issued by the Silk Association, carrying Cracks XX down to $5 and Saiyu to 1,280 Yen.

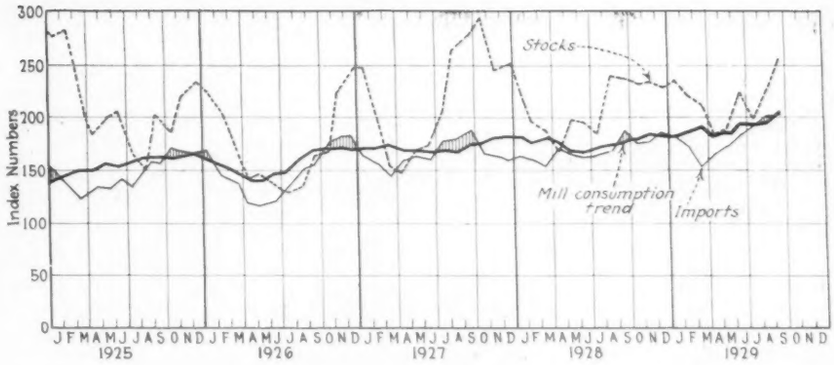

300
250
200
150
100
50
0
Index Numbers
Stocks
Mill consumption trend
Imports
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
1929

Fig. 2. STATISTICAL POSITION OF RAW SILK—Stocks of Raw Silk, Bales in storage at end of month. Average 1921=100 (Silk Association of America). Imports, Pounds. Average 1921=100. Three months' moving average (Dept. of Commerce). Last month estimated by converting each item of Silk Association figures from bales to pounds and then applying the per cent increase to preceding month. Factory Consumption Trend, Deliveries—Bales, average 1921=100. Five months' moving average (Silk Association of America).

Wholesale silk sales rose more than usual in August and were nearly 100% of the average for the years 1922-1928, allowing for seasonal variation. This compares with 102.3 a year ago. Spindle activity also gained a little in August, when it was 86% of the average for the same years as compared with 68% of the average last year.

These developments were favorable and helped the September rise. They at least indicate that spindle activity is maintained at a level that is not too high in comparison with the sales of goods. But the situation is not any stronger in this respect than it was in the three years 1926, 1927, and 1928. We must, therefore, again conclude that there is nothing to indicate a sustained price advance.

On the other hand, we find that August "deliveries" had risen so high in comparison with the activity of both spindles and looms that it indicates that the *actual consumption* was not so great as appeared to be the case. In fact, there has been an increased accumulation of stocks at New York as reflected in September figures. The quantity in transit is large, and so, of course, is the total visible supply. To this condition, we must add the uncertain and unsatisfactory state of the goods market which is still afflicted with over-production and hampered by doubts as to style trends.

Our conclusion is that silk is already so cheap that no large decline seems possible. But it is equally difficult to see why it should advance. We must therefore, expect irregularity, with weakness predominant during the next month or two.

Canadian Production and Imports of Cotton Manufacturers Increase

In the calendar year 1928, Canada purchased cotton semi-manufactures and manufactures produced in the United States, to the value of $21,149,000, according to the Textile Division, Department of Commerce. The Philippines imported $14,070,000 worth, sales to Cuba totaled $12,655,000 and to Argentina, $11,873,000.

During 1928, shipments of lint cotton from the United States to Canada amounted to 234,103 running bales, valued at $24,219,000. From the standpoint of value, Canada stood in eighth place in 1928, as an export market for American raw cotton, although its purchases were only a little more than one-tenth of the value of shipments to Germany and to the United Kingdom, which took $217,891,000 and $211,399,000 worth respectively.

Engineering Course at Lowell Textile Institute Revised

Professor Herbert J. Ball of Lowell Textile Institute, Lowell, Mass., announces that several important changes in his textile engineering course have been made during the summer. There has been a consolidation of subjects to enable the student to concentrate at one time on a group of related matters, with the result that he will gain a better knowledge of the subjects studied. The consolidation leaves only eight subjects to be carried by the student in one term, as compared with thirteen formerly carried. This change reduces the number of examinations necessary.

All the important textile and mechanical engineering subjects have been retained. New textile subjects—for example, new courses in textile design and manufacturing—have been added. A new heat-engineering course includes, besides a study of steam plants, the applications of steam to dyeing and other textile processes, reclaiming waste heat from processes, operation of internal combustion engines, and principles of refrigeration. The study of foreign languages has been made optional. A new advanced mechanism course consists of a technical study and analysis of the principal mechanisms of the loom and other complex textile machines. A new course in dye laboratory will later be included in Professor Ball's course.

The
"BANNER"
Wrap Stripe Machine Product

"BANNER" MACHINE
for unlimited clocking
effects on highly
distinctive
hosiery.

HEMPHILL COMPANY
Main Office *and Factory*
PAWTUCKET RHODE ISLAND

PATTERNS MADE BY
THE FIRST FULL AUTOMATIC
WRAP STRIPE MACHINE

New York Sales and
Show Rooms
93 Worth Street, New York

BRANCH OFFICES

Philadelphia Sales and
Show Rooms
Heymann Building,
213 S. Broad Street

Chattanooga, Tenn.
James Building

High Point, N. C.
Commercial Bank Building

KNIT GOODS

Holidays Cut Hosiery Sales

But Fair Demand Prevails And Market Tone is Confident

THE Columbus Day week-end, together with the Jewish observance of religious holidays, served to reduce the total of hosiery business, but a fair turnover was enjoyed despite the short period. Each week in October seems to register a slight increase in hosiery movement. Half-hose sales are still far from satisfactory; some of the large-scale mills, both in price and higher-end goods report active demand, but the trade as a whole has difficulty in clearing men's numbers.

Trend in Men's Fancies

Staples are much better than fancies, and have been moving steadily, the usual confidence prevailing in this market. One of the reasons for the slow movement of men's fancies probably is the buyer uncertainty regarding holiday offerings and holiday demand. This is still a moot issue, as numerous holiday lines have not yet been shown. Designers of men's fancies for Christmas are paying more attention than ever to style, and there is a pronounced trend toward the conservative but still cheerful pattern. "Loud" half-hose becomes less important with each season, and this year the indications are that the screaming color combinations will be confined to a limited group.

Rayon as Gift Hose

It is already evident that rayon mixtures will be a feature of the Christmas season in half-hose. Rayon is becoming an important unit in the 50 to 75c. ranges, and the improvements being effected both in the yarn itself and in the knitted designs are building a better market for these goods.

Current call for full-fashioned is satisfactory. Mills are selling both spot and future, with future business somewhat larger than usual. Gunmetals and dust tones are showing movement, though suntan variations have not yet lost their grip. Fine gauges are in good call; knitters said they were placing plenty of business on 45s. The volume end, especially the 39s, showed their usual activity.

There was little change in the children's and infant's hosiery situation. Excellent demand continued, and confidence prevailed. The school openings encouraged retail activity, and spurred buyers to re-stock. Anklets, of course, have more or less dropped from the picture; but winter styles are active.

Labels to Specify Wool Content in Underwear

UTICA, N. Y.—In order that purchasers of knit underwear may be better informed as to what they are buying, a plan to require labels showing the actual percentage of wool in each garment will be submitted to the Federal Trade Commission at another trade practice conference this fall, arrangements for which are being made by Roy A. Cheney, secretary, Associated Knit Underwear Manufacturers of America.

As a result of the association's efforts Mr. Cheney said, a ruling by the Federal Trade Commission, which bars use of the word "wool" in marketing knit underwear "unless the wool content thereof is distributed throughout the body fabric" becomes effective Jan. 1, 1930.

Dismiss Charge Against B-Z-B

The Federal Trade Commission has dismissed a complaint against the B-Z-B Knitting Co., of Rockwood, Ill., charging misuse of the terms "fashioned" or "full-fashioned" as applied to hosiery when sold to the purchasing public.

Men's Bathing-Suits To Be Abbreviated

Will be Little More Than "Trunks and Suspenders" in 1930, is Trade Report

Interest in the outerwear trade was divided between meeting active current demand for heavyweight sweaters, writing future business on 1930 bathing-suits, and discussing the plans for the Chicago openings next month. What the openings will reveal is conjectural, but a few hints are being dropped in the trade regarding this and that line.

It seems accepted that some sensational developments are in the wind, as regards bathing-suits. With the keen competition prevailing in this end of the industry, knitters naturally enough are keeping strict secrecy regarding their plans. It is understood that many of the new models will be further exploitation of the sunback theme.

Knitters who discussed the issue this week grinned when they were asked whether women's 1930 bathing-suits are going to be more extreme; the general thought was that the suits could not be made more revealing, without incurring protest. However, some discreet changes in cut are understood to be in the lists of Chicago showings. There will be more clipping away of fabric in men's suits, if Worth Street whispers may be relied on. Several factors there said men's suits were due for some drastic improvement; they will be cut both in front and back, permitting the maximum of sunlight, and reducing the suit to little more than "trunks and suspenders," it is reported.

October Led 1928 Hosiery Output

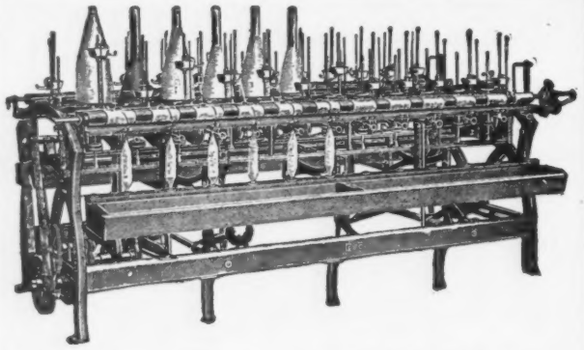
November Second, Figures Show—Year's Total Production was 56,218,200 Dozen Pairs

October was the banner month in hosiery production in the United States in 1928, according to figures just compiled by the Department of Commerce. These figures are based on a survey conducted in 294 identical establishments, representing 377 mills. The year's total production was 56,621,137 doz. pairs, and of this aggregate 5,429,763 doz. were produced in October. November was the second best month, with 5,218,200, and March came third with 5,196,557.

The statistics showed a very low production of men's all-rayon full-fashioned half-hose; this output totalled 617 doz. pairs for the year. Rayon was an important fiber in the men's mixtures; the mixtures averaged 6,000 doz. pairs monthly, the biggest month being November, with an output of 15,388 doz. Men's all-rayon seamless ranked higher in volume than wool or silk and came next to the mixtures in the seamless group. Men's all-cotton seamless was the outstanding line; the total for this group averaged 500,000 doz. monthly, January being the biggest month, with an output of 794,612 doz. pairs.

All-rayon production of women's full-fashioned was low, and all-rayon output of women's seamless stood decidedly higher. In full-fashioned, all-silk as usual holds a conspicuous lead; the leading month was October, with an output of 1,569,244 doz. pairs. Silk, rayon, etc., mixtures were low in the full-fashioned group, and jumped about 500% in the seamless division.

Rayon was decidedly more important in boys', misses' and children's hosiery. In the all-rayon line, March was the biggest month, the output totalling 131,558. This volume placed rayon second in importance to cotton in that division; the cotton output of boys', misses' and children's hosiery in March was 558,040.



PAYNE WINDERS

Wind from Cop, Skein or Bobbin

Over 1,900 in use by Hosiery Manufacturers

IMPROVED
UPRIGHT SPOOLERS

To Spool from Cop, Skein or Bobbin; Doubling Spoolers for Doubling two, three or more ends into one; Upright Quillers, Quill from Cop, Skein or Bobbin. Ring Dresser, Spooler and Reel Spindles, Cop Skewers, Spooler Guides, Bolsters and Steps Made and Repaired at Short Notice.

GEO. W. PAYNE CO.
(Est. 1865, Inc. 1903)
Office, 102 Broad St., PAWTUCKET, R. I.
CHARLES W. PAYNE, Pres. CLINTON F. PAYNE, Sec'y and Treas.

Six Feed Rotary Jacquard Machine for Knitting Latest Jacquard Designs.

Write for Catalogue and full information

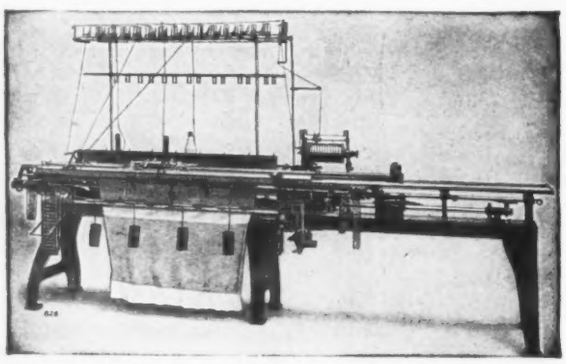
See also CONSOLIDATED TEXTILE CATALOG

STAFFORD & HOLT, INC.
Little Falls, New York, U. S. A.
New York Office—
D. Stromberg, 1204 Myrtle Ave., Brooklyn, N. Y.

"DUBIED" Swiss Flat Knitting Machines

For Knitted Outerwear, etc.

Acknowledged by users, experts and judges as **"The Best"**



Specialists in flat knitting machines of every description

Complete Supply and Service Department
Machines on Demonstration

Dubied Machinery Company

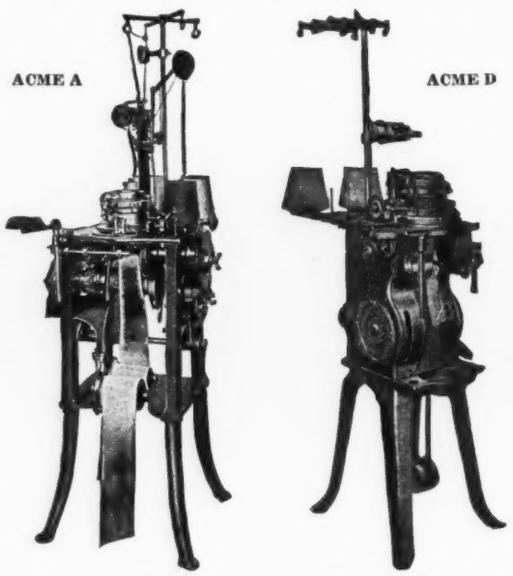
E. O. SPINDLER
Sole Agents for United States and Canada
139 Franklin Street, New York City

NEEDLES and MACHINES

of RECOGNIZED QUALITY and WORTH are the

ACME PRODUCTS

made for SERVICE in the KNITTING ROOM



Revolving Cams Revolving Needles

Ask those who use them.

See also CONSOLIDATED TEXTILE CATALOG

Acme Knitting Machine and Needle Co., Franklin, N. H.

Christmas Underwear Demand Increasing

Rayon Will Be Big Feature in Gifts, is Indication—Spot Heavyweights Active

The approach of the holiday season is beginning to register in the underwear trade, both as regards output and turnover. Mills look for a bigger movement of rayon knit undergarments than ever. Men's rayon numbers have of recent years become more important as a gift proposition, but up to last Christmas, women's lines had the lead. Indeed, it is only in the last couple of years that rayon underwear has had any real position as a Christmas proposition. One factor, discussing last Christmas' sales, said he thought his firm sold more rayon than glove silk underwear for gifts, though the company enjoys a big business in both fields.

October is proving a very satisfactory month throughout the underwear trade. Heavyweights have moved steadily for several weeks; spot shipment is at a premium on many lines, and mills are producing at capacity. The interest has also reflected on December and Spring lines. There is a steady future call for women's glove silk and rayon underwear as a gift proposition. Bloomers and vests are being stressed, especially in the peach and flesh tints. Active buying of women's knitted rayon pajamas for Christmas also is reported. Spring balbriggans which had a slow beginning are coming into their own. Buyers placed numerous future orders on these lines this week.

Yarn Tension in Warp Knitting

(Continued from page 54)

it would be a relatively simple matter to cause them to fall to a still lower position when a yarn breaks, as shown at *y'*, and in this manner come in contact with a charged rail *z*, thereby closing an electric circuit, which stops the machine. The use of a charged rail with drop members is of course old in the art, having been and still being used in a number of warp stop motions for broad and other looms.

Many attempts have been made to permit each thread of a warp machine to be fed from separate yarn packages. While some of them work fairly well, there is more or less difficulty in maintaining an even tension and most of them are not constructed to act as a stop motion when any one or more of the yarns are broken. I therefore consider the construction shown in Fig. 162 a highly desirable type in that it would appear to embody all the necessary features.

Colonie (N. Y.) Fibre Co. is again operating with night shift in addition to full time day schedules.

Suggests Research Clearing-House

Agency Needed to Coordinate Applied Science in All Industries

By William W. Carman, Jr.
Assistant Chief, Textile Division, Bureau of Foreign & Domestic Commerce

THERE is a very distinct need for a common denominator or a coordinating agency in the field of technical research or applied science. The establishment of a "research clearing-house" or inter-industrial research institute should be given serious consideration. There are technical problems confronting many industries today which, in the final analysis, involve the technical considerations surrounding those industries which supply the materials for further manufacture or which are used in the processes of manufacture.

Inter-dependence of industry, although recognized in many ways, has up to this time been backward in furthering a coordination of technical research. Research in individual industries has been carried far, but many problems baffle the individual research laboratories simply because they have their genesis in an entirely different scientific premise.

Take for example the shoe manufacturer: His product is made up of a number of primary products each of which has its particular use and must be used with consideration of the technique, mechanical limitations, and special requirements of the shoe industry. It is doubtful whether the industries supplying these primary materials fully realize the technical problems confronting the shoe industry or that the shoe industry is fully cognizant of the technical considerations limiting those industries upon which his product is dependent.

This situation confronts many industries; indeed we might say that it is the one industrial "blind spot." Selfish individualism within industrial groups has given way to the reason of advancing economic thought so that we no longer find the "lonewolf." We find association of ideas, of practice, or marketing within groups. And yet complacency, the air of self sufficiency still erects a barrier between industries. Collective thought, collective technique, meeting on the common ground of mutuality of interest, should be the goal of all industry.

Another example from a widely separated industry may serve to bring out more clearly the advantages which might be gained from a research clearing-house. The citrus fruit growers devised a so-called tent which is drawn over the trees and under which is released a poisonous gas destructive to scale pests. Made of heavy canvas, these tents served the immediate purpose very well but they had certain disadvantages. They were heavy and the fabric being coarse and stiff "burned" the branches and otherwise injured the trees and fruit. However, canvas was used because it was strong and would hold the gas for the necessary length of time.

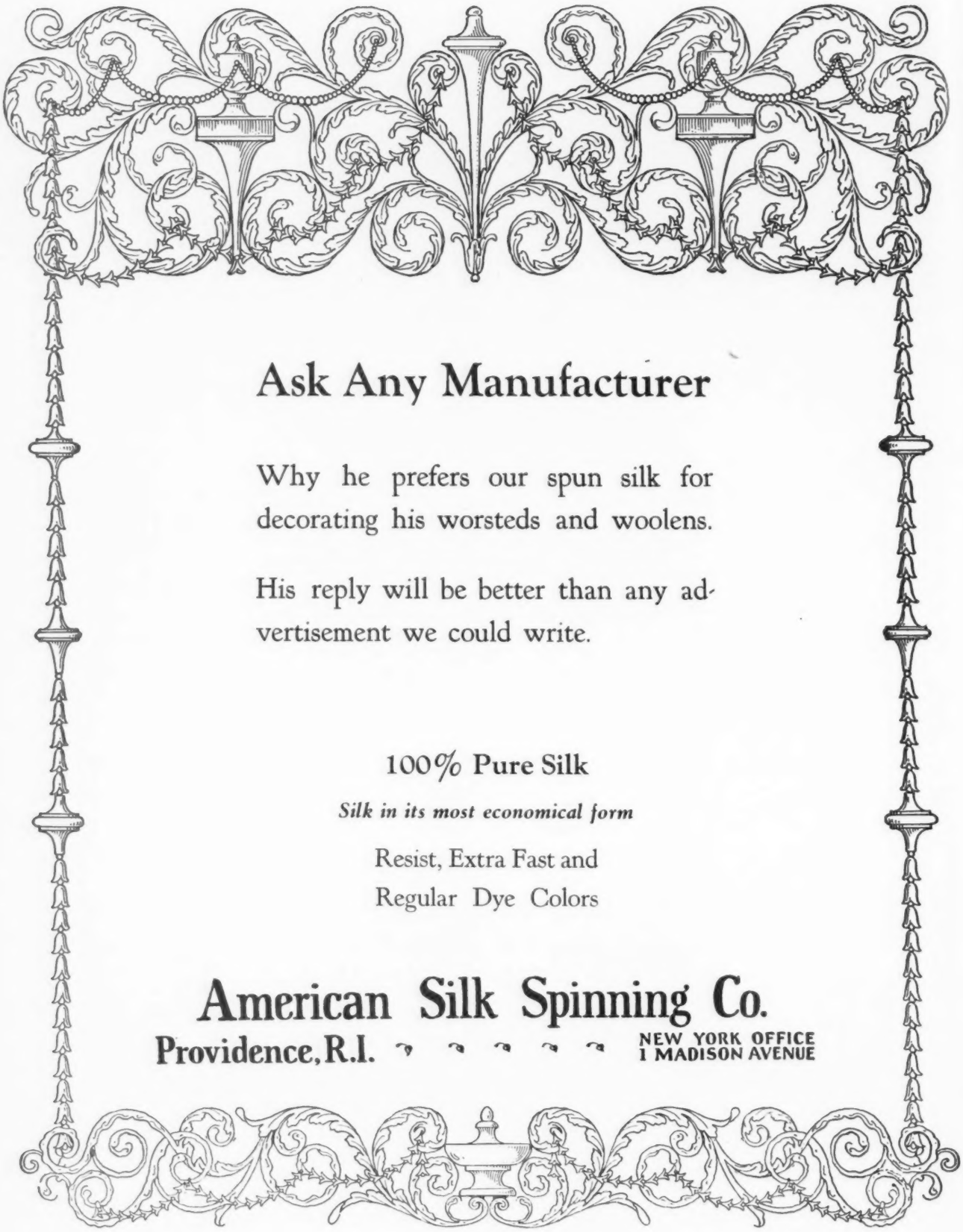
Not being fabric manufacturers, the fruit growers were not cognizant of the fact that it might be possible to produce a cloth, light yet strong and one which would hold the gas. Their problem after an unduly lengthy time, and by mere chance, did come to the attention of the cotton goods manufacturers. Had there been a central clearing-house for such problems it is possible that the solution to a vexing situation might have been cleared up within a comparatively short time. A clear statement of the technical considerations confronting the fruit growers and brought directly to the most interested supplying industry would undoubtedly have been productive of results.

How It Would Work

I do not vision an elaborate or top-heavy organization with expensive laboratories. Nor does this idea presuppose the discontinuance of existing research laboratories but rather the strengthening of these individual units. I see a central organization composed of a selected group of technicians from the primary industries. Their tools are to be the facts drawn from the laboratories and practice of individual industries. These facts must be codified, standardized where standardization is possible and cross-indexed to the highest degree so that they form the basis for an efficient industrial intelligence service.

A problem presented to the clearing house will first go to the technician representing the industry from whence it comes. He will codify and exemplify the problem in the light of the technical considerations affecting that industry. It will then be presented to the technicians of those industries which it affects, who in turn will attempt to bring out a coordinated problem with due consideration for the natural limitations of his industry. A joint statement of the problem and the suggested course to be taken in carrying on research should then be presented to the interested industries or their laboratories for active research and report back to the central egency.

The whole problem is simply this: The establishment of an intelligent liaison service within and between industries; the substitution of knowledge for ignorance or half-knowledge.



Ask Any Manufacturer

Why he prefers our spun silk for decorating his worsteds and woolens.

His reply will be better than any advertisement we could write.

100% Pure Silk

Silk in its most economical form

Resist, Extra Fast and
Regular Dye Colors

American Silk Spinning Co.

Providence, R.I.

NEW YORK OFFICE
1 MADISON AVENUE

FABRICS

Slow Week for Cotton Goods Market

Firm Prices in Most Items—Carded Broadcloths at Concessions Depending on Quantity

Last week was one of the quietest periods the cotton goods market has experienced in some time, and although there is a considerable volume of goods as yet unpurchased, sellers do not foresee any sustained activity in the near future. A strong, rising cotton market could conceivably bring on heavy purchasing, but mill centers do not expect any such move during the present month. Several factors stated that present conditions lead them to believe that October will not be as favorable a month as September, but rather goods buying will continue on a slow basis, probably enough to take care of production, but little more. Events before the close of the month may throw all this reasoning in the discard, but at least this is the feeling of the mid-month prophets.

Raw Cotton: All branches of the trade have now had an opportunity to think over the last crop estimate and the net result has been practically nil. Cotton prices have held up well and many believe they will be higher in the long run. The majority of goods prices show no changes. The one adverse factor has been a slowing up of demand.

Sheetings: The general market was quiet, although certain bag numbers were in good demand during the week. The market is firm and in a greatly improved position when compared to a month ago.

Carded Broadcloths: This is the one section of the market where a price weakness has cropped out, although it takes a bid on at least 100,000 yd. to secure concessions. In the higher count constructions, three sets of prices prevail: the base price for less than 100,000 yd., ⅛c. off for over that amount, and ¼c. off for half a million yards or more. Large quantities have been sold in many centers, but there are also several less important producers who have adhered closely to quotations. The base price for 90x60s is 10c., 100x60s 10⅜c., and 112x60s 12½c.

Piques: Buying has slowed down considerably due to the completion of fall purchasing and as yet converters are not certain just how big an item they will be this coming spring. In the meantime small fill-in orders are received.

Cotton Goods Quotations

	Oct. 16	Oct. 9	Oct. 17, 1928
Spot cotton, N. Y.	18.25c.	18.65c.	20.20c.
Print Cloths			
27 -in., 64x60, 7.60	5½c.	5½-5⅝c.	5¾-6¼c.
38½-in., 64x60, 5.35	7⅜c.	7⅜c.	7⅜c.
39 -in., 68x72, 4.75	8¼c.	8¼c.	9-9½c.
39 -in., 72x76, 4.25	9¼- 9⅜c.	9¼-9⅜c.	9⅜c.
39 -in., 80x80, 4.00	10¼c.	10¼c.	10¼-10⅜c.
Brown Sheetings			
36-in., 56x60, 4.00	8¼-8⅜c.	8¼-8⅜c.	8¾-9c.
36-in., 48x48, 3.00	10⅛c.	10⅛c.	10⅛c.
37-in., 48x48, 4.00	8¼-8⅜c.	8¼-8⅜c.	8⅜c.
Pajama Checks			
36½-in., 72x80, 4.70	9¼-9⅜c.	9¼-9⅜c.	8¾-8⅞c.
36½-in., 64x60, 5.75	7⅛c.	7⅛c.	7⅛c.
Miscellaneous			
Drills, 37-in., 3 yd.	11c.	10¾-11c.	11c.
Denims, 2.20	16.33c.	16.33c.	17c.
Tickings, 8-oz.	20-21c.	20-21c.	21-22½c.
Standard prints	9⅛c.	9⅛c.	9c.
Eastern staple ginghams, 27-in.	10c.	10c.	10½c.

Broadsilks Hesitant, Pending Openings

Cutters and Jobbers Want to See New Lines, Before Making Commitments

Broadsilks were hesitant, with business restricted to emergency needs for the most part. Piece goods buyers and cutters placed spotty orders for staples, and registered a slightly greater interest in fabrics for winter resort wear. The general feeling in the market was one of watchful waiting. Several of the leading firms showed their spring lines this week, and other openings are scheduled for next week. The consuming market showed keen interest in the new fabrics; a fair amount of sample buying was done, but the real movement of these lines is not expected to develop for some weeks.

Originality in Spring Lines: The French influence was as strong as ever in the 1930 fabrics shown to date, and much originality was in evidence. It is too early to gauge the spring field, as only a few of the openings have been held. However, green seems to have been subordinated in the colors; there is a leaning to blue, and to cream-tan variations.

Polka Dots Emphasized: Polka dots, with a carnival touch are being exploited in the spring numbers, and some of the fabrics are very attractive, though not especially novel. Dark tan dots, on a cream background, were especially prevalent.

Metallic Fabrics Slow: Metals continued their tendency toward softness. Prices were uncertain, and buyers showed but limited interest. There is a fair amount of stock available, which weavers are anxious to clear. A few numbers, notably yellows, were in demand, but the line generally was quiet. Metal chiffons sold spottily for spring.

Production: Output of all fabrics has slowed up, pending reaction to the October openings.

Worsted Dress Goods Get Greater Attention

American Woolen Announces Shut-Down of Three Units

The last two weeks have produced few changes in the wool goods markets. This may or may not be attributed to the recent Jewish holidays as well as Columbus Day, although closing on the latter date was not general throughout the selling houses.

Mills to Shut Down: An announcement provoking trade interest was that of the American Woolen Co. regarding the shutting down of its Globe, Yantic and Chase Mills for an indefinite period. The lack of demand for woolens is given as the cause. These mills will run out goods in process so that it may possibly be the end of the year before the shut-down becomes entirely effective. Trade comment was particularly centered on speculation as to the disposal of the knitting equipment recently installed in the Globe Mill for the production of topcoatings. According to trade opinions, this topcoat line had been attractively priced, also well styled, and it was understood that substantial orders had been placed by leading clothing manufacturers. In view of this comparative success, there is the belief that such knitting equipment will either be transferred to another unit, or the Globe Mill will be converted to a knitting division. This latter supposition is quite logical as the mill is located in Utica, N. Y., a leading knit goods center.

Worsted Dress Goods: Greater attention is attracted by lines of worsted dress goods, and last year's lightweight trend is unquestionably carried over into the present season in a broader way. The American Woolen Co., which heretofore has concentrated its women's lines on cloakings, showed an extensive offering of light-weight materials at its most recent opening. By making this effort to secure a portion of this trade, the big company gives an air of authority to all reports of increased interest and broader market for women's wear wool goods. Worsted fabrics have achieved consumer acceptance and are accorded considerable space in retail store newspaper advertising, both as garments and in yard goods.

Men's Wear: Tailors-to-the-trade have continued active purchasers, and their spot demand has been above normal. Certain of the leading worsted mills are understood to be sold up to the end of the year, and in a few instances to January. Others will need additional business to take care of looms through late December.

A Typical Example

Our Bonus Plan has been operating in a certain New England textile plant for a year.

During that time, the following results have been accomplished:

1. The total labor cost per yard has been reduced 14% without the slightest labor trouble.
2. The quality of product is noticeably better.

Furthermore, the average wage per operative is higher now than a year ago, after making allowances for a wage reduction which was general throughout New England.

The above is a typical example of the value of an incentive offered by our Bonus Plan.

Our cost engineers are specialists in up-to-date cost methods in textile plants.

BARNES TEXTILE SERVICE
101 Milk Street, BOSTON, MASS.
CONSULTING ENGINEERS

MECHANICAL SURVEYS
OPERATING METHODS
MODERN COST SYSTEMS
BONUS PLANS

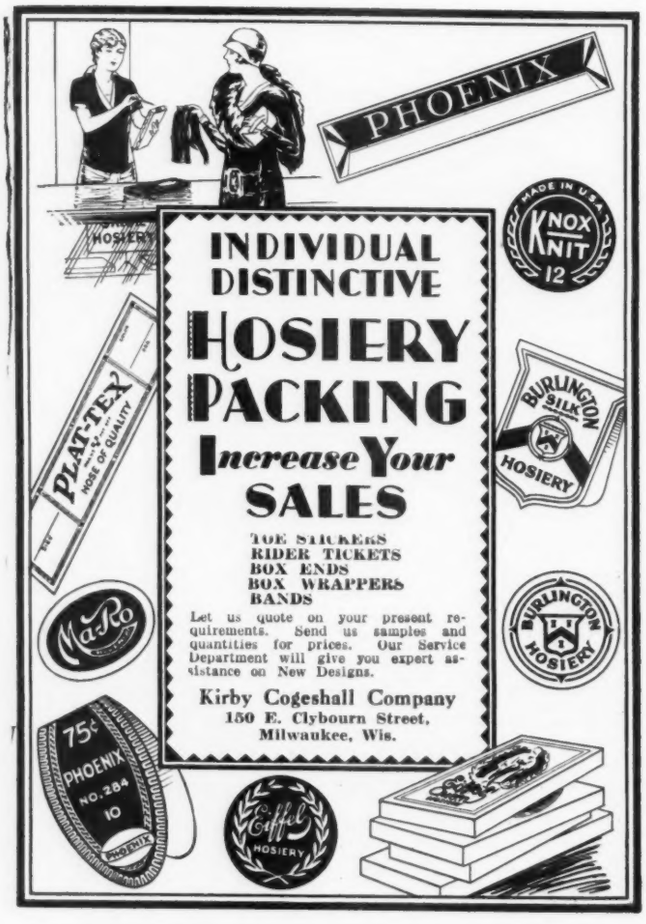
Over 20 Years' Experience in the Textile Industry.

No. 9 Foot Power Rotary Sewing Machine

An Exceptionally Efficient Machine

THIS Portable Foot Power Sewing Machine has earned itself a reputation for economy in hundreds of mills. Gear driven, it is easy to operate and capable of attaining a high rate of speed. It is used in various parts of the mill, principally in the dyehouse, bleachery and print room for sewing Woolen, Cotton, Burlap and other fabrics of all weights, wet or dry. Sewing Head operates without arm or connection. *Write for details.*

TILLINGHAST SUPPLY & MACHINE CO.
76 Lafayette St.
SALEM, MASS.



FINANCIAL

Continued Downward Trend

Few Textiles Show Strength or Activity— Consolidated Textile Increases Capital

BOSTON, Oct. 16.

WHETHER or not in sympathy with the downward trend of other classes of industrial securities, textile stocks have maintained that trend, although comparatively few radical declines have been registered. On the other hand, a few high grade textiles have scored substantial advances, such for instance as an advance in Pepperell of 2 points to 103 and of 3 points in Esmond Mills preferred to 102. At today's local auctions these were the only advances excepting a rise of 3 points in Union Cotton to 50. None of the declines exceeded 3 points and most of the sales were at unchanged prices or at fractional declines. Among the notable recessions were sales of 50 Newmarket at 48 to 49, or a decline of 3 points at the low figure, and of 28 Naumkeag at 88 to 89, which at the latter closing price was a decline of 3 points. Considerable quantities of Arlington Mills are still being offered for sale, 135 shares changing hands at today's auctions at 25 for a decline of $\frac{3}{8}$ point.

With the exception of a decline of 1 point each in Amoskeag and American Woolen common the net changes for the week in textile shares listed on the local exchange were fractional. American Woolen preferred at 34⅜ is within ⅛ point of the low for the week and is off a net of ⅝ point; the common at 14⅝ is the low for the week and a decline of 1 point. Bigelow-Hartford common sold as low as 91½ on Friday of last week, but at today's closing of 93 shows a net gain of ½ point and yesterday sold as high as 94. Pacific at 30¼ is off ¾ point for the week and is at the week's low.

New Consolidated Textile Stock

Stockholders of the Consolidated Textile Corp. at a special meeting this week voted to amend the certificate of incorporation to allow increase of authorized capital stock to 3,750,000 shares of no par from a previous issue of 2,000,000 shares. This action is taken to make available sufficient authorized shares for conversion into common of the 5-year 7% notes at the option of holders in accordance with terms whereby these notes were extended to July 15, 1934, from July 15, 1929.

Cohn-Hall-Marx Co.

The Cohn-Hall-Marx Co., a subsidiary of the United Merchants & Manufacturers, Inc., reports for the fiscal year ended July 31 last net earnings after depreciation and provision for federal taxes, of $849,996, which compares with a similar net for the previous fiscal year of $687,573. After preferred dividends and provision for prior year federal tax assessments there was a balance for common stock of $822,761, equal to $6.58 on each of the 125,000 shares outstanding; earnings for the common for the 1927-28 fiscal year aggregated $647,831, equal to $5.18 a share. Current assets July 31 last aggregated $8,493,468 and current liabilities $4,386,771.

Financial Notes

The Ware Shoals (N. C.) Mfg. Co. has received a Federal tax refund of $144,726 for excess income and profit taxes collected for 1918-19 and 1920.

Malcolm D. Whitman, president of the Belleville Warehouse Co., New Bedford, Mass., confirms the report that the Firestone Cotton Mills have purchased an option on the Belleville property which expires shortly and that they will continue the warehouse business of the company if they exercise their option. Stock of the Belleville Warehouse Co. is largely owned by Manomet Mills, Nashawena Mills and Nonquitt Mills, and this stock is the principal unliquidated asset of the old Manomet Mills. The Belleville Warehouse property adjoins Manomet No. 4 mill which is now the Firestone Cotton Mills.

The commissioner appointed to hear petition of Hamilton Mfg. Co., cotton goods, Lowell, Mass., for abatement of 1927 taxes has ruled, as a matter of law, that the petition should be dismissed and abatement denied, although that if abatement should be made the petitioner is entitled to an abatement of $45,137, with interest from June 8 last. The ruling is based upon the fact that the entire tax was not paid until June, 1928, while hearings were being held before him. He finds that Lowell assessors overvalued the property to the extent of $1,504,571, the fair cash value on April 1, 1927, having been $1,158,479. This valuation is nearly double that at which the receivers finally sold the property.

At the recent annual meeting of British Celanese, Ltd., the chairman said that as far as the company's financial position was concerned it had never been so strong as it was today. The shareholders would notice that the stock in trade and raw materials had increased very substantially to over £1,700,000. This was largely due to the bad trade which had forced them to accumulate stocks to a certain extent. He was glad to say, however, that in the first two months of the current fiscal year the excess stocks had disappeared. In the month of June the profit was over £100,000, after charging debenture interest but before depreciation and any other writing off.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
20	Lancaster, pfd.	100	12½	—2½
135	Arlington	100	25	— ⅜
30	Esmond, pfd.	100	102	+3
28	Naumkeag	100	88–89	—3
23	Union Cotton	100	50	+3
100	Connecticut, com. A.	100	41c.	—9c.
135	Connecticut, 1st pfd.	100	23¾–¾	—1½
10	Farr Alpaca	100	101	....
43	Pepperell	100	102½–103	+2
63	Amoskeag, pfd.	100	74–73¾	— ¼
3	Plymouth Cordage	100	84	—1½
120	U. S. Worsted, com.	....	$1 lot	....
25	Connecticut, 2nd pfd.	100	2¾	—3½
50	Newmarket	100	49–48	—3
685	Total			

Southern Shares Pass Dull Week

CHARLOTTE, N. C., OCT. 12—Southern cotton mill shares for the week ending today witnessed only minor changes in prices, the slight advance registered in a few of the issues were off-set by the declines, and as a result the weekly summary as compiled by R. S. Dickson & Co., gives the close for the week in the average bid price of the 25 most active common stocks at 89.16 per share, unchanged from the previous week. Preferred issues of the better class continued in fair demand with the volume of sales limited and prices practically unchanged.

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Oct. 16:

	High	Low	Last Sale	Net Change
American Woolen	16½	14½	14½	— 2½
American Woolen, pfd.	35	33	33	— 2
Belding-Hemingway	10½	9½	10½	+ ½
*Blumenthal, pfd.	82½	79	79	— 6
Botany Mills, A.	6½	6½	6½	+ ½
Cannon Mills	43½	41½	42	— 1½
*Cohn Hall Marx	69	68	68	— 3
Collins & Aikman	38	36½	36½	....
Consolidated Textile	2½	2½	2½	....
*Courtalds, Ltd.	16	16	16	— ½
Duplan Silk	20	19½	20	— ½
Durham Hosiery, pfd.	47½	45	45	+ 1
Gotham Hosiery	37½	34½	34½	+ 4½
Kayser, Julius	52½	49	49	— 1
Mallinson	17	16	17	— ½
Mohawk Carpet	66½	62	62	— 4½
Munsingwear	53	53	53	+ 1½
Pacific Mills	31½	30½	30½	— ½
Phoenix Hosiery	17½	16	16	— 3½
*Powdrell & Alexander	109	101½	107½	— ½
Real Silk Hosiery	72	68	68	— 3
*Tubize	329½	290	294	—30
United Piece Dye Works	38½	37	38	+ 1
Van Raalte	39½	38	38	— 2

*Listed on Curb.

Adjustable Textile Worker's Chairs

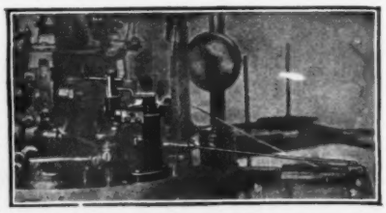
Topper's—
Seamer's—
Inspector's Chair
No. 422

"A tired worker costs more than a good chair."

Seat the worker at the proper height, provide a chair with a naturally molded saddle seat, and one that supports the back where it does the most good—and we will guarantee a production increase of at least 3%.

ROYAL METAL MFG. CO.
Largest Manufacturers of Industrial Seating
1139 S. Michigan Blvd.
CHICAGO, ILLINOIS

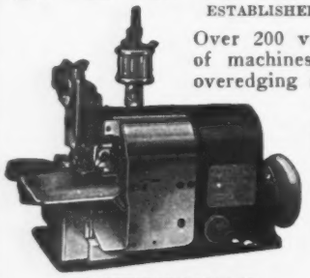
Equip Your Ladies' Hose Machine
with the . . .
Little Silent Watchman
STOP MOTION



and eliminate 75% of your knitting troubles by stopping the machine when the broken needle or defects occur.

SIMPLICITY . . . DURABILITY . . . ECONOMY
Circular and prices upon request
Manufactured by
P. C. KLINGLER
111 Stewart Ave., Riverside, N. J.

MERROWING
ESTABLISHED 1838



Over 200 varieties and modifications of machines for trimming, seaming, overedging and ornamenting all sorts of fabrics.

Special machines for Flat-Butted - Seaming ends of piece goods, saving cloth and labor in subsequent processing.

Let us show results on swatches of your own fabrics.

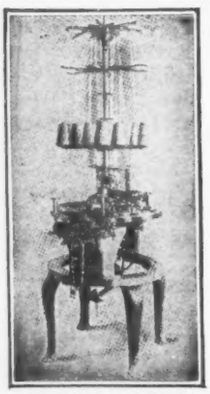
See also CONSOLIDATED TEXTILE CATALOG

MERROW
TRADE MARK REG. U. S. PAT. OFF.
THE MERROW MACHINE COMPANY
14 Laurel St., Hartford, Conn., U. S. A.

PROMPT SERVICE RIGHT PRICES

BONE DRY HOSIERY FINISHING BOARDS
THAT WORK ABSOLUTELY SMOOTH

Jos. T. Pearson & Sons Co.
1825 E. Boston Ave., Philadelphia, Pa.



SWEATER MACHINE

Sweater *and* Toque Machinery

We announce to the knit goods trade that both our new Latch Needle Sweater and Toque Machines, after severe and protracted tests, have proven unqualified successes.

Sweater machines knit plain, half, and full cardigan, stripe, rack and have separating course.

Toque machines automatically stripe three colors on ribbed fabrics.

TOMPKINS BROS. CO.
SYRACUSE, N. Y. *See also* CONSOLIDATED TEXTILE CATALOG
Established 1846

REELS
Single, two-ply, three-ply, and four-ply for slack twist.

COP WINDERS
for linen, flax, and jute.

Standard for 50 Years

Also SPECIAL MACHINERY of All Kinds

LINDSAY HYDE & COMPANY
2130 E. York Street, Philadelphia, Pa.

UNIFORM PRODUCTS MEAN UNIFORM COSTS

BUY YARNS AND TEXTILES TO SCOTT TEST!

Arguments may be empty words and the man with the strongest voice and the weakest side may win. Scott Testing Machines settle arguments—dispel doubt. Their "say-so" is final and leaves no room for argument. Uniformity in finished product depends upon uniformity in raw material. Accurate tests to establish standards make for uniformity.

YARN & TEXTILE TESTERS

HENRY L. SCOTT Co. PROVIDENCE, R. I.

SCOTT TESTERS

L. T. IVES CO.
Established 1874 Manufacturers of all kinds of
Spring Knitting Needles
Slides, Sinkers, Jacks, Etc.
New Brunswick, N. J.

HARLEY-KAY, LIMITED
BUILDERS OF HIGH GRADE KNITTING MACHINERY
GEORGETOWN, ONTARIO

WINDERS
Cop and Skein
For Wool, Cotton or Silk
YARN WAXERS
Mill Accessories

COTTON YARNS

Knitting Yarns Firmly Held

Carded and Combed Active This Month

PHILADELPHIA.

ALTHOUGH trading during the last week has been smaller in volume, the month to date shows a decided improvement over the previous one. The first ten days of October were active with practically every selling house and especially so with those specializing in knitting yarns. Good demand came from knitters for both carded and combed and at present bulk of such spinners are comfortably sold ahead for the balance of the year.

Up-State underwear manufacturers have bought large amounts of yarn this month, bulk of contracts being closed the first week. Sales called for deliveries to be made three or four months ahead in many instances and for deliveries during the balance of the year in most. Spinners of both carded and combed knitting counts are now well situated in regard to forward business on books and for that reason are firm in quoting on new business.

This is reflected in the range of quotations, knitting yarn being quoted half cent higher than the same count put up in weaving package. This condition reflects the actual state of buying, there having been a more active request from knitters than from weavers during recent weeks and spinners' position is seen in their quotations.

Spinners quote 31c. and higher for carded 10s cones and while sales have been reported on a 30c. basis there are others which were made at 31c. for an underwear grade yarn. Contracts were usually placed on a blanket basis, giving the buyer the right to specify what counts shall be shipped. Deliveries on these sales are being made in medium-weight counts, which are strong and well sold up so far as spot supplies are concerned, spinners anticipating that this will change to the light-weight numbers as end of contracts, approach. Large sales were made early this month on the basis of 40c. for 30s extra-quality and 38½c. to 39c. for 30s regular grade and the same prices are being paid for small lots which have been moved this week.

Combed spinners are also well sold ahead with their single yarns, having booked large contracts during recent weeks, demand of this character still being in evidence this week although less apparent than earlier this month. Combed single was moved on the basis of 42c. for 18s or 52½c. for 38s. Many spinners of these qualities quote on the basis of December futures and figure on the opening price plus spinning charges for the price of single combed yarns for that day. Following this policy these spinners necessarily change their prices each day with the fluctuations which occur in the raw material market.

Weavers Less Active

Two-ply combed qualities are quiet, largest buyers in the market, both mercerizers and weavers having covered their needs well ahead during recent weeks, shortly after combed spinners reduced prices. Mercerizers are well covered with gray yarn needs for some time to come and combed spinners are not forcing sales of additional quantities at the present range, having sufficient low priced business on their books for the time being.

Weavers are buying cautiously, looking at the cotton market closely and

Cotton Yarn Quotations

Carded—(Average Quality)

Double Carded Weav'g and Knitt'g Yarn 2c. to 4c. Higher According to Quality

SINGLE SKEINS OR TUBES—(WARP TWIST)

4s to 8s	$0.30½–$0.31	20s	–$0.34½
10s	.31 – .31½	24s	– .36½
12s	.31½– .32	26s	– .38
14s	.32 – .32½	30s	– .39
16s	.33 – .33½	40s extra quality	– .52

TWO-PLY SKEINS AND TUBES

8s-2	$0.30½–$0.31½	26s-2	–$0.38½
10s-2	.31½– .32	30s-2	– .40
12s-2	.32 – .32½	36s-2	– .44
14s-2	.33 – .33½	40s-2	– .47
16s-2	.33 – .34	40s-2 high break	– .51
20s-2	.34½– .35	50s-2	– .55
24s-2	.37½– .38½	60s-2	– .62

SINGLE WARPS

10s	$0.31½	24s	$0.37 –$0.37½
12s	.32	26s	.38 – .39
14s	.32½	30s	.40
16s	$0 33½– .34	40s extra quality	.52 – .53
20s	.34½– .35		

TWO-PLY WARPS

8s-2	$0.31½–$0.32	24s-2	$0.38 –$0.38½
10s-2	– .33½	26s-2	.39 – .39½
12s-2	.32½– .33	30s-2	.40½ – .41½
14s-2	.33½– .34	40s ordinary	.47½– .48½
16s-2	.34 – .35	50s-2	.55½
20s-2	.35 – .35½	60s-2	.62 – .63

8s-3 and 4-ply skeins and tubes; tinged, .27½–.28; white, 29½– 30; waste, .26½–.27

HOSIERY CONES (FRAME SPUN)

8s	$0.30 –$0.30½	22s	$0 34 –$0.34½
10s	.30½– .31	24s	– .35½
12s	.31 – .31½	26s	– .36
14s	.31½– .32	30s tying in	.36½ .37
16s	.32 – .32½	30s regular	.37½– .38½
18s	.32½– .33	30s extra quality	.39½– .40½
20s	.33½– .34	40s	.46 – .47

Combed Peeler—(Average Quality)

WARPS, SKEINS AND CONES

	Merc. Tw.	Wp. Tw.		Merc. Tw	Wp Tw.
20s-2	$0.45	$0.46	60s-2	$0.64	$0.65
30s-2	.50½	.51	70s-2	.74	.75
36s-2	.52	.52	80s-2	.86	.87
40s-2	.53	.54	90s-2	1.07	1.10
50s-2	.58½	.59	100s-2	1.30	1.40

SINGLES

12s	–$0.40½	30s	$0.50 –$0.51
14s	$0.40½– .41	38s	.52½– .53
16s	.41 – .41½	40s	– .53½
18s	– .42	50s	.58½– .59½
20s	.43 – .43½	60s	.63½– .64½
24s	.45½– .46	70s	.74 – .75
28s	.48 – .49	80s	.86 – .88

MERCERIZED CONES—(COMBED, UNGASSED)

26s-2	$0.60 –$0.62	80s-2	$1.09 –$1.12
30s-2	.61 – .63	90s-2	1.45 – 1.50
36s-2	.64 – .66	100s-2	1.75 – 1.80
40s-2	.66 – .68	120s-2	2.15 – 2.20
45s-2	.71 – .73	Singles	
50s-2	.73 – .75	30s	$0.83 60s $1.07
60s-2	.82 – .85	40s	.88 70s 1.22
70s-2	.97 – 1.00	50s	95 80s 1.52

COMBED REVERSE TWIST THREAD YARNS—SKEINS, TUBES OR CONES, 2, 3 AND 4-PLY

	Peeler		Sakelarides	
	Average	Best	Average	Best
24s	$0.54–$0.55	$0.60–$0.61	$0.77	$0.82
30s	.57– 58	.63– 64	.80	.85
36s	.59– .60	.65– 66	83	.88
40s	.64– .65	.69– 70	86	91
45s	.69– .70	.74– .75	91	.96
50s	.74– .75	.79– .80	.96	1.01
60s	.84– .85	.89– .90	1.06	1.11

Quotations are average prices of the counts and qualities indicated at the close of business, Oct. 16. They do not cover lower or higher qualities unless specifically noted. For New York Spot Cotton prices, see page 97. For staple cotton prices, see page 99.

DURENE

REG. U.S. PAT. OFF.

NATURAL, BLEACHED AND COLORED

YARNS

MAIN OFFICE

123 SOUTH BROAD STREET

PHILADELPHIA

Manning St.
HIGH POINT, N. C.

432 Fourth Ave.
NEW YORK

418 Franklin St.
READING, PA.

323 So. Franklin St.
CHICAGO, ILL.

James Building
CHATTANOOGA, TENN.

52 Chauncy St.
BOSTON, MASS.

HAMILTON, CANADA

LOS ANGELES

MILLS

CHESTER, PA.

BELMONT, N. C.

ABERFOYLE MANUFACTURING COMPANY

Representatives in All the Principal Countries of the World

refusing to buy ahead because of the easiness displayed there during recent weeks. They are taking deliveries on old contracts promptly but when making new commitments are willing only to take small quantities at a time, this week showing this policy more clearly than previously seen during the month.

Spinners of carded weaving yarns are not worried over this condition, bulk of them being well sold up for the next few weeks, especially in the case of 30s-2 warps and high grade 20s-2, having little to offer manufacturers interested in spot yarn or nearby delivery. Although there are rumors sales have been made on the basis of 34½c. for 20s-2 warps no spinner was located willing to quote this figure and dealers report sales of this count at 35c. which is the minimum any spinner has accepted this week. No large sales have been reported, bulk of business being spot shipment of a few packages from dealers' stocks or less than 5,000 lbs., when delivery from spinner was specified.

Taking the market as a whole a satisfactory volume of business has been done during the first half of the month and indications at present are it will be a larger month with most selling houses than September and larger than the same month last year with a majority. While future contracting is being neglected for the time being there is still a healthy volume of hand-to-mouth business passing and the fact spinners are unable to make prompt deliveries proves that the market is resting on a sound basis at present.

Cotton Yarns Strong

Less Responsive to Cotton Market —Shortage Apparent

NEW YORK: Carded yarns are at present less responsive to the cotton market than many had imagined before the last crop report. The delivery question has come to the fore and lends a somewhat bullish tone to yarns. Cotton has declined from the levels of a month ago, but yarn prices show very little change. Spinners are firm and buyers are expected to anticipate a little more than has been their habit recently.

Mills Sold Ahead

Numerous mills have enough business on hand to keep them running for the next 60 days and if daily business keeps on at present levels, there is the matter of where all the "at-once deliveries" of yarn will come from. Stocks of the most used counts are very small so cannot be relied on as a source of supply. Buyers have had dealers at their beck and call for so long that they now feel some apprehension at a possible inability to get shipments as they want them.

Notwithstanding an improved differential between cotton and yarn prices, spinners claim an inadequate margin, and have turned down many current trading offers. Carpet yarn inquiry is stated to be improved and fairly good, but prices are too low for the New York market. Weaving yarns have also shown an improvement, and road men have been sending in a good volume of business. Plush qualities are quiet just at present. Knitters are increasingly active and pushing for deliveries, especially on the 24s and 26s which are scarce. Insulating numbers are a bit spotty, although there is still a day-to-day call for lots of 5,000-10,000 lb. Many of these have been turned down as prices have been away out of line.

Yarns Firm on Scarcity

Spinners Well Sold Ahead And Spots Command Premium

CHARLOTTE, N. C.

DEMAND for both carded and combed yarns slackened during the week in the Charlotte-Gastonia market and the volume of transactions reported was considerable less than that of the same period last week. It was thought that uncertain crop conditions have kept some buyers out of the market, but the lower price basis of raw cotton has not resulted in a corresponding reduction in gray yarn quotations.

On the contrary there has been an apparent stiffening of prices in the yarn market, and stocks of both carded and combed qualities are so low that yarns for spot shipment are extremely scarce and usually bring a slight premium. Most of the combed spinners in the Gaston County area are sold ahead for four to six months, while local dealers report that carded mills in the South in most cases, have enough orders to absorb their production for the remainder of the year. It was stated that the relationship of supply to demand in the gray yarn market is healthier than at any time in several years, with no indication that stocks of finished yarns are increasing on the primary or on the secondary markets.

Mercerizers report that specifications for shipments to apply against existing contracts have been received in increasing numbers during the last few days, but the demand for carded single hosiery yarns remains very quiet. Some business was placed for carded single yarns on the basis of 30c. Two-ply carded yarns were being sold at 38 to 39c. for 26s-2, 40 to 41c. for 30s-2, and 48c. for 40s-2, average quality, while spinners were asking as high as 50c. for the best quality 40s-2.

Combed yarn prices experienced no change during the week. There was little activity in reverse twist combed yarns, 36s average quality bringing 58c. while best quality could not be bought for less than 65c.

Dull Yarn Market at Chattanooga

CHATTANOOGA, TENN. — The local yarn market continued dull during the week ending on Oct. 12. There was little interest shown in any of the items offered and no price changes of importance. Thrown silk is continuing steady, the price for double extra being quoted at $5.80.

In carded cones 10s are offered at 30 to 31c. with 20s at 32½ to 33½c. The price of mercerized 60s-2 is 82c. a pound with 20s-2 at 58c. and 80s-2 at $1.09. Brokers are offering combed singles at 42 to 43c. for 18s and 77 to 79c. for 70s.

E. W. Sweet Yarn Co. Representing Forrest Mercerizing Co.

Forrest Mercerizing Co., Gloucester, N. J., announces the appointment of E. W. Sweet Yarn Co., with offices in Burlington, N. C., and Chattanooga, Tenn., as sales representatives in Tennessee, Georgia, Alabama, Virginia, and North and South Carolina, for their mercerized yarns and also their Forrest cuprammonium yarns.

Downward Price Trend

This and Slow Demand Influenced by Weaker Cotton Futures

BOSTON. — Lack of buying support plus a further substantial decline in cotton futures have weakened prices of most staple counts of carded and combed yarns, but at the latest decline demand has been no more active than it has at any time during the last three or four weeks. Yarn prices are still well above the lows touched during the summer months, and sellers are demonstrating greater price resistance than at that time. The market is comparatively free of stock accumulations, and the majority of spinners are much better covered with orders than at that time. Furthermore, users, although better supplied with yarn than then, have a much larger volume of unfilled orders and are not in a position to remain out of the market for a long period.

Prices on medium and coarse count carded yarns are not off on an average more than one half cent and many spinners are refusing to accept business at the decline. The combed division of the market shows relatively greater

CANNON YARNS

Habit-forming

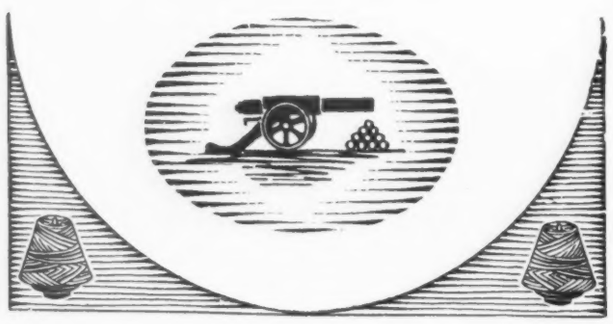
Cannon Yarns are that way. Once acquainted with their reasonable cost—with the type of ability that goes into their servicing—with the *yarns themselves*—they are decidedly difficult to relinquish. At any rate, so we gather from the steadiness of the Cannon clientele.

May we not suggest that you acquire this decidedly profitable habit? Quotations gladly.

THE CANNON MILLS
INC.
PHILADELPHIA

New York Providence Boston
Reading, Pa. Chicago Utica, N. Y.
Chattanooga Kannapolis, N. C.
Hamilton, Ont., Canada

Sales Agents
AMERICAN ENKA RAYON



Stronger Yarn Makes Fewer Seconds

YARN that is stronger than the accepted standard makes better wearing goods.

Freedom from slubs or weak stretches reduces breaks, irregularities or defects to the minimum,—and reduces the number of seconds.

Standard Yarn, spun and mercerized in our own plants to our own specifications, assures you smooth, strong, lusterful yarn.

STANDARD-COOSA-THATCHER CO.
Chattanooga, Tenn.
Executive and Sales Office:
LAFAYETTE BUILDING, Philadelphia
Branch Sales Offices:
NEW YORK, 456 Fourth Avenue
CHATTANOOGA
CHICAGO, 222 West Adams Street
CHARLOTTE, N.C., Cosby and Thomas, Johnston Bldg.
Canadian Representatives:
Wm. B. Stewart & Sons, Ltd.
Toronto-Montreal

SPINNERS MERCERIZERS DYERS BLEACHERS

Standard

MERCERIZED YARN

DURENE
REG. U.S. PAT. OFF.

weakness, although the situation is much more spotty then on carded yarns both as to demand and the price attitude of spinners. Most spinners having a reputation for their product are holding price with considerable firmness, and buyers who demand quality yarn are purchasing with some confidence at full market prices as their needs accrue, but are not buying far ahead. Sales of 60s-2 to 80s-2 combed peeler of mercerizing twist are reported 2 to 3c. below average minimums, or on a basis of 82 to 83c. for 80s-2, but such transactions are exceptional, and it is doubtful if any leading spinners will meet such figures.

Prices Firmly Held

No sales are reported below a basis of 35c. for 20s-2 and 40c. for 30s-2 carded warps of average quality, nor below 30c. for 10s frame spun cones, but an increased volume of yarns is available at such figures both from direct-selling spinners and from dealers. Temporarily the prices of cotton futures are exerting a greater influence upon yarn prices than the law of supply and demand as it applies solely to yarns. Cotton prices are sagging under the peak load of marketing, but the cotton movement should show a decrease soon and if cotton futures then advance there may be a sudden and radical change in the attitude of buyers toward the yarn market and quite as sudden and radical a change in the price position of yarns.

Chattanooga Textile Golf on Nov. 7 and 8

CHATTANOOGA, TENN.—Nov. 7 and 8 has been selected for the annual two-day golf tournament and outing of the Chattanooga Textile Association, according to announcement here Saturday. Within the next few days invitations will go out to a large number of textile men in this and other sections.

The textile association holds a golf tournament at the Chattanooga Golf and Country Club each fall while the yarn men hold a similar outing there each spring.

The textile association is headed by Clyde Wilkins, Champion Knitting Mills, president, while Henry Bryan is in charge of arrangements for the tournament. The tournament will be for 36 holes, coveted trophies being offered for the play.

Cotton Products to Sell Elmore Mercerized Yarns

Cotton Products Co., Fidelity Philadelphia Trust Bldg., Philadelphia, has been appointed selling agents for the single mercerized yarns produced by the Elmore Co., Spindale, N. C., starting Nov. 3. Cotton Products Co., will offer this yarn to the trade through their offices in the various textile centers.

Waste Business on Low Basis

Dealers Endeavor to Meet Market, Contractors Lose Out

BOSTON.—Business in the cotton waste market last week showed further improvement as to volume but no improvement in prices obtained. Said a well-known trader "I consider the waste market a very dull affair and on the level of prices ruling it is almost impossible to do any business at a profit." Asked whether low contract prices next season would lift the trade out of the deep hole into which it had fallen he expressed his doubt stating that he was afraid the usual excitement accompanying the contracting season might again lead to an outbreak of overzealous competition with the result that the mills would find themselves in a safe position while those handling wastes would have another bad time of it.

A generally stable merchandising level for both cotton and its wastes is indicated for the next three or four weeks at least. In the local waste market there is nothing of any particular importance transpiring apart perhaps from some additional interest seen in the shorter fibers intended for packing purposes and for mattress stuffings. Comber seems to be established pretty firmly around 15c. but at this price is said to be about 1c. per pound too high for the English market to take any interest in it, with the cotton industry in the Lancashire district far from active. There is some little call for Egyptian and Sak. comber also for peeler strips. Threads for machining are on a low level and on current basis consumers have been buying a little more freely.

The actual condition of stocks available seems shrouded in uncertainty. Mills who sell their waste accumulations from time to time are not able to obtain anything like the prices that contract mills bill their wastes out to their clients. What might be termed "free" market stocks furnish perhaps the best field available for the general run of waste dealers. Although the general price level is low, business has to be done and dealers have to meet the situation, which they do by looking around and securing cheap lots of wastes from any source.

July import statistics of cotton waste into the three principal ports of entry again indicate that Boston in the matter of importing is still in the third place. New York imports for July were 1,040,000 lb.; Philadelphia, 511,000 lb.; Boston, 331,000 lb.

Current Quotations

	Cents
Peeler comber	15 — 15½
Peeler strips	14 — 14½
Sak. comber	13½ — 14
Choice willowed fly	7½ — 8
Choice willowed picker	6 — 6½
Sak. strips	18 — 19
Linters (mill run)	5 — 5½
White spooler (single)	10½ — 11

President Hines' Address

(Continued from page 42)

they made only one. That means, that out of the 110 mills visited, 30% were on the point of having a reasonably good cost system or did not need a cost system in the ordinary sense, and that means that 70% of the 110 mills did not have any cost system at all that was worthy of the name. Now, that is an enormous field for work, and we are carrying forward that work and as we get more and more into it, we believe that the mills are going to take hold of that with increasing interest.

With the sanction of the Board of Directors, some time ago, I have been fortunate enough to develop a small advisory committee of selling agents to advise with me about broad problems. There are two members of that committee at present and it is our intention to have a third member. The two that have been selected are W. H. Baldwin, and Guy Hunter, and their advice has been invaluable in dealing with these problems that we have to consider.

I think that we have begun to see signs of gratifying improvement in export work. We stress the importance of concentration in the export field, and I have suggested as a step in that direction that various selling agencies could join in conducting export business for their mills in particular markets. Already some arrangements of that sort are in progress. The two largest export interests in cotton textiles recently joined hands in handling South American business, and they have thereby been able to put the personnel which is highly trained where it can be used to better advantage than heretofore.

There is no question that in the current year there has been a very substantial increase in the consumption of goods having the style element, and I think it is fair to say that while that in part was due to a movement in that direcion, which was already under way, that it has been definitely helped by the Institute's work, and, on the other hand, the fact that the Institute has done that work and has come in for so much favorable commendation on account of it has helped the Institute and I think it has promoted a publicity which was favorable to the industry.

We are now planning for a renewal of that campaign for next year. We are taking that up with the mills to get their support, and I am sure that they will be justified in a very wide support, and I hope it will be very pronounced.

Having given this general review of the situation, and I haven't undertaken to touch all of the things in any detail, I want to conclude with this comment, that it would be a great mistake for this industry to reach the conclusion that some one proposition is the panacea for all its difficulties. I think the Institute is wonderfully well established at the present time. It has made most encouraging progress in the last few months and I think it deserves the continuing confident and enthusiastic support of the membership.

J. B. JAMIESON COMPANY

COTTON YARNS

38 Chauncy St. BOSTON, MASS

SWIFT SPINNING MILLS

Columbus, Georgia

Cotton Yarns of Quality

From Mill direct to Consumer

WM. A. P. MacKNIGHT

Sole Representative

1518 Walnut St. Philadelphia, Pa.

PAULSON, LINKROUM & CO., Inc.

COTTON YARNS

52 Leonard St., New York

H. S. RICH & CO.

COTTON YARNS

180-182 SOUTH WATER ST.

PROVIDENCE, R. I.

Solway Dyeing & Textile Co.

PAWTUCKET, R. I.

Dyers, Bleachers and Mercerizers of Cotton Yarns, Warps or Skeins

ABSOLUTELY FAST COLORS

CATLIN & COMPANY, Inc.

COTTON YARNS

SOLE AGENTS FOR

LAWTON SPINNING COMPANY

and other mills furnishing full range of all numbers

NEW YORK BOSTON PHILADELPHIA CHICAGO

COTTON WARPS

Cotton Yarn and Warps *Carded and Combed*

White and Colored Single and Ply

Sell Direct

DANA WARP MILLS, Westbrook, Maine

JOHN F. STREET & CO.

COTTON YARNS

201 Industrial Trust Bldg., Providence, R. I.

CHICAGO PHILADELPHIA NEW YORK

The MONTGOMERY CO., Windsor Locks, Conn.

Manufacturers of MERCERIZED

COTTON YARNS Give the high, Silk-like lustre in Knit Goods and Woven Fabrics.

NOVELTY YARNS Boucle, Bourette and Spirals in Cotton, Wool, Worsted, Mohair and Silk.

TINSEL, Lame, Laminette, Cords, Cordonette Threads, Brilliants, Perlerette, Brush and Mop Yarn in Gold, Silver, Antique, Steel, Copper. Tinsel Conductor Cord for Electrical Purposes.

New York Sales Office: 468 Fourth Ave.

EWING-THOMAS CONVERTING CO.

Specialists in Mercerized Yarns

CHESTER, PA.

Warp Mercerizing for the Trade

Gassed—Natural—Bleached—Colors

DOUBLE MERCERIZED SPECIAL PROCESS

TILLINGHAST-STILES CO.

COTTON YARNS

Providence, R. I.

113 Worth St., New York

Room 922, Utilities Bldg., 327 So. LaSalle St., Chicago

TAPES, BRAIDS

Bindings & Twines

Spinning Tapes and Spindle Bandings

Gaufin Textile Co.

32 North Front St., Philadelphia, Pa.

MONUMENT MILLS, Housatonic, Mass.

HIGH GRADE COTTON YARNS, White, Colors, Bleached On Beams, Jack Spools, Cones, Skeins and Chain Warps

FAST-BLACKS and COLORS For Woolen Mills a Specialty

WE SELL DIRECT

KROUT & FITE MANUFACTURING CO.

Manufacturers of

Cotton and Mercerized Narrow Fabrics, Webbings

Electric and Spool Tapes a Specialty

Office and Mill, Allegheny Ave. and Emerald St., Philadelphia

Telephone Connection

COTTON YARNS *Plus Service*

Any Count or Variety

EASTERN or SOUTHERN GREY or PROCESSED

Advice Based on Our Experience of Thirty Years in Bleaching, Dyeing, Mercerizing, Etc., at Your Service

E. J. McCAUGHEY

51 Arlington St., Pawtucket, R. I.

CARD STAMPING and REPEATING

For All Textile Fabrics

WALTER W. HODGSON, INC.

S. W. Cor. Lawrence and Clearfield Sts.

PHILADELPHIA

COTTON

Cotton Market Lower

Traders Waiting for Bullish Feeling To Follow Southern Marketing

THE cotton market during the week seems to have been fluctuating between the weight of the movement and continued hedging against it on the one hand, and the feeling that prices are likely to be higher once this pressure has abated. On the whole, however, the more positive of the two factors has prevailed, and prices have made new low ground for the movement. Trade buying has been more or less in evidence during the entire progress of the decline and has shown a tendency to increase on a scale down.

For a time the demand was sufficient to steady prices around the 18½c. level for December. Once the demand at these figures had been supplied, another point of resistence developed around 18¼c., but this likewise disappeared and the market later in the week broke below that figure. At the same time the volume of southern hedging seemed to be diminishing, while the lower level of prices appeared to be bringing in rather a more general demand from the trade although it was still evidently limited or on a scale down.

It can hardly be said that the events of the week have thrown any fresh light upon the ultimate relation of supply to demand for the season or on the probable average value of cotton as a long range proposition. The present action of prices has reflected first of all, perhaps, a feeling that with a crop of 14,915,000 bales and with a carryover of approximately 4,500,000 bales from last season, there is no reason to anticipate a price high enough to exercise a restrictive effect on the world's consumption. Last season this amounted to about 15,100,000 bales at prices averaging 18.92c. for middling cotton in the New Orleans market. This is a view, of course, which suggests that there are limitations on the bull side of the market. Secondly, it has reflected the expectation or apprehension of declines under "the weight of the movement" and a feeling that better buying opportunities would present themselves before the first rush of cotton to market was over or had been absorbed, or a holding movement of consequence developed in the South. Moreover, there may still be more or less uncertainty as to the final size of the crop, and with little apparent incentive for immediate purposes, except in a conservative way on scale down orders, the trade has been waiting for the further development, either of the crop outlook or the trade situation.

According to some reports reaching the trade, the tropical storm which passed through the southeastern part of the belt at the begining of October is turning out to have more damage than may have been originally anticipated. Last Wednesday's weekly report of the Weather Bureau also mentioned damage by weather conditions in parts of the western belt. Such advices are encouraging a hope in some quarters that the next report of the Government will show a reduction in yield figures. From some other sections, however, reports reaching the market tend to confirm the last crop indication, and, on the whole, most traders seemed content to assume that unless there is a very early or very late killing frost, final ginnings will be within two or three hundred thousand bales of the Oct. 1 indication one way or the other.

Meanwhile nothing has happened to cause any change of sentiment as to the outlook for consumption. The report of the Census Bureau on consumption in this country for the month of September was about in line with expectations. It was placed at 545,649 bales against 558,113 for August and 492,307 for September, last year. This was considered in line with the view that this country will consume at least as much cotton as it did last year, while optimism still prevails as to prospects abroad.

The outlook on the Continent is said to have been improved by satisfactory food crops, while quite evidently there has been some improvement of demand in Lancashire, although more latterly it has been hampered to some extent by the higher bank rate.

The following table shows Wednesday's closing quotations in the leading spot markets of the country with the usual comparisons:

Market	Oct. 9	Oct. 16	Change	Last Year	Sales
Galveston	18.45	18.15	—30	19.70	10.560
New Orleans	18.16	17.89	—27	19.32	42.831
Mobile	17.65	17.40	—25	19.10	5.167
Savannah	18.09	17.68	—41	19.20	6.242
Norfolk	18.25	17.88	—37	19.38	3.139
New York	18.65	18.25	—40	20.20	5.650
Augusta	18.06	17.75	—31	19.25	2.972
Memphis	17.25	16.95	—30	18.75	55.813
St. Louis	17.50	17.25	—25	18.75	.....
Houston	18.40	18.05	—35	19.45	89.240
Dallas	17.50	17.15	—35	18.85	82.143

The following differences on and off middling are given as compiled from the report received by the New York Cotton Exchange. The cotton grades marked ** are not deliverable on contract:

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	1.00†	.90†	.70†	.63†	81†
S. G. M	.70†	.65†	.55†	.50†	.62†
G. M	.45†	.40†	.40†	.38†	.44†
S. M	.35†	.25†	.25†	.25†	.30†
S. L. M	.75*	.65*	.75*	.75*	.75*
L. M	1.75*	1.60*	1.50*	1.50*	1.60*
S. G. O**	3.00*	2.50*	2.50*	2.25*	2.50*
G. O	4.00*	3.50*	3.50*	3.00*	3.40*

YELLOW TINGED

G. M	.50*	.75*	.50*	.25*	45*
S. M	1.00*	1.15*	.75*	.75*	.92*
M**	1.75*	1.50*	1.25*	1.50*	1.58*
S. L. M.**	2.50*	2.00*	1.75*	1.88*	2.21*
L. M.**	3.25*	3.00*	2.50*	2.88*	3.01*

YELLOW STAINED

G. M	1.50*	1.40*	1.25*	1.25*	1.42*
S. M.**	2.25*	2.15*	2.00*	1.75*	2.14*
M.**	3.00*	2.65*	2.75*	2.50*	2.79*

BLUE STAINED

M. G.**	1.75*	1.25*	1.50*	1.75*	1.61*
S. M.**	2.25*	2.00*	2.25*	2.50*	2.25*
M.**	3.00*	2.50*	3.00*	3.50*	2.97*

*Off middling. †On middling.

Cotton Statistical Data

(Fluctuations of Futures)

	Closed Oct. 10	For Week High	For Week Low	Closed Oct. 16	Net Change
October	18.54	18.41	18.00	18.00	—.54
November	18.69	18.47	18.16	18.17	—.52
December	18.64	18.60	18.11	18.13	—.51
January	18.74	18.69	18.22	18.23	—.51
February	18.88	18.64	18.36	18.36	—.52
March	19.02	18.98	18.50	18.51	—.51
April	19.16	18.91	18.64	18.64	—.52
May	19.30	19.25	18.78	18.80	—.50
June	19.28	19.03	18.80	18.80	—.48
July	19.32	19.23	18.83	18.83	—.49

Spot Fluctuations for Week

(Middling)

	New York	New Orleans	Liverpool
Friday, Oct. 11	18.55	18.20	10.28
Saturday, Oct. 12		Holiday	
Monday, Oct. 14	18.35	17.98	10.18
Tuesday, Oct. 15	18.35	17.98	10.07
Wednesday, Oct. 16	18.25	17.89	10.08
Thursday, Oct. 17	18.00	17.75	10.06

Spot Fluctuations and Stocks

	Prices Oct. 16	Stocks This Week	Stocks Last Year
Galveston	18.15	407,635	578,671
New Orleans	17.89	308,563	198,594
Mobile	17.40	64,799	39,362
Savannah	17.68	79,479	54,598
Norfolk	17.88	17,063	28,291
New York	18.25	98,333	15,714
Houston	18.05	724,924	683,334
Augusta	17.75	72,382	43,656
Memphis	16.95	242,901	156,480
St. Louis	17.25	3,447	2,013
Little Rock	16.78	29,237	18,908
Dallas	17.15	.....	.....

Brisk Trade at Memphis

Cotton Business Breaks Records and No Let-Up Sighted

Memphis, Tenn., Oct. 14.—This cotton market never experienced a more active week than the one just closed. The activity was general and showed no signs of abating as the week closed. Sales reached a total of 60,095 bales, exceeding the previous week's, believed to have been a record, by 8,000 bales.

Net receipts again approximated a

Sans Interruptions

Is production in your weave room or knitting room punctuated by frequent stoppages? Have you ever stopped to analyze what these interruptions are costing you—in delays—in product impairment?

When Quissett Yarns are used machine stops are negligible. We see to that from the time of raw stock selection upward. Quissett Yarns are strong, uniform, even running. It pays to specify these yarns. Lower production costs—a more acceptable knit or woven product—these are inevitable.

Carded and Combed Cotton Yarns in all Numbers and Descriptions.

Ply Yarns our Specialty.

Egyptians, Sea Island, Peelers, Sakelarides, Pimas, and Peruvians.

Quissett Mill

New Bedford, Mass.

Wm. M. Butler, Pres.
Edward H. Cook, Treas.
Thomas F. Glennon, Agent

QUISSETT MEANS QUALITY

T. J. PORTER & SONS

Fine Yarns

COTTON	RAYON
WORSTED	RAMIE
CAMELHAIR	SPUN RAYON
MOHAIR	BEMBERG
ALPACA	LINEN

Representing Leading Spinners of Every Type

1600 Arch Street

PHILADELPHIA

New York Los Angeles

Henderson-Harriet Cotton Mills

HENDERSON, N. C.

DEPENDABLE

New Card Room Equipment of the latest type

6s to 20s single slow carded—
Cones and Skeins

8s to 16s plied—
Cones, Skeins, Tubes and Warps

22s to 30s single—
Cones and Skeins

Direct Representation

SELLING OFFICES

Henderson, N. C. *9905*
Troy, N. Y. *North 59*

record, reaching nearly 65,000 bales, or 11,000 bales in excess of the record, made in 1913, until two weeks ago. While shipments are not keeping pace with receipts, the outward movement is very heavy. This market is experiencing an unusual shipper demand, due, no doubt, to poor staple and shortage of the crop in the west and to a disappointing crop and low grades in the Atlantics. The central belt is producing one of the best crops in its history—very few have been better—and the grade and staple are good; there is a demand for low grades which cannot be met, at the present time at least. So far the harvesting season has been favorable, with little interruption and practically no weather damage.

Ginnings in the Yazoo Basin, of Mississippi, totaled, in round numbers, 400,000 bales to Oct. 1 against 250,000 bales last year. While ginnings have been more rapid than usual throughout most of the central belt, except the northernmost portions, the delta ginnings are taken as indicative of a crop in excess of 850,000 bales, with some ideas running as high as 1,000,000 bales. Demand still centers on white strict low middling, middling and strict middling $1\frac{3}{8}$ in. to and including $1\frac{1}{16}$ in. There is sharp demand for $\frac{7}{8}$ in. but $1\frac{1}{8}$ in. is moving rather slowly, comparatively at least. Basis on $1\frac{1}{8}$ in. and better staples has stiffened a little but this seems to be due in the main to the decline in contract values, while first hands are hard to deal with unless 20c. or more can be offered for middling $1\frac{1}{8}$", which is currently quoted at 100 on the December contract. A few sales have been made at 125 to 135 on, but most of them nearer 100 on.

Weather conditions during the week were favorable for harvesting over most of the belt.

Market Statistics

Basis Middling

	Saturday Oct. 12.	Saturday Oct. 5
10 markets average	17.72	18.10
Memphis	17.15	17.55

Premium Staples

F First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Steady
$1\frac{1}{2}$-in	19.50@19.85c
$1\frac{5}{8}$-in	20.60@20.85c
$1\frac{3}{4}$-in	24.00@24.50c

Current Sales

	For Week	Prev. Week	Week Before
Memphis total	60,095	52,567	41,501
F.o.b. included in total	50,153	42,342	35,153
10 markets	362,786	397,651	386,710

Memphis Receipts, Shipments, Etc.

	For Week	Last Year	Year Before
Net receipts	64,713	32,988	33,333
Gross receipts	104,974	60,543	63,510
Total since Aug. 1, net	222,650	123,515	126,791
Shipments	62,165	45,178	42,434
Total since Aug. 1	232,397	176,216	184,741
Total stock	204,176	132,438	138,178
Increase for week	42,814	15,565	21,076
Unsold stock in hands of Memphis factors	43,208	.....	.....
Increase for week	11,903	.....	.....

Basis and Futures Weaken

Basis Trend on High Grades Firmer —Sak. at New Low

BOSTON, Oct. 16.—With both futures prices and basis tending in their favor it is not surprising that spinners are displaying only mild interest in extra staple cottons excepting to fix prices on contracts placed previously, or in such occasional lots as can be had for delivery well into next year on the basis of flat prices for prompt delivery. All crop and ginning news tends to prove that the new crop of Delta and other extra staples will be well in excess of that of last season, the only indefinite questions being as to the relative quality of the crop and its future price. Most shippers are trying to raise the premium on grades higher than middling but there is enough selling pressure to prevent this; on low grades the trend is in the other direction, but although there are continued reports that the supply of low grades is increasing there is at present less pressure to move these than higher grades; this may be due to the fact that thus far ginnings have been largely confined to early pickings and the better grades.

As has been the case for a long period the strongest part of the market is on full inch to $1\frac{1}{16}$ in. cottons in strict low middling and better grades, yet most of these cottons are a little easier to buy than they have been previously this season. It is a peculiar fact that within a range of 250 to 275 points on December the bulk of the business on $1\frac{3}{32}$ to $1\frac{1}{8}$ in. cotton of middling and strict middling grade is being done. For full $\frac{1}{8}$ in. hard western cotton of middling grade shippers ask as high as 350 points on December, but sales are reported as low as 250 points on and very little business above 300 points on even for delivery into next year. Commercial $1\frac{3}{16}$ in. hard western cotton of middling grade is reported available as low as 300 points on December with asking prices extending up to 400 points on for prompt delivery, but for full $1\frac{3}{16}$ in. 150 to 200 points more is generally asked. Although the crop is being ginned rapidly it would be foolhardy to predict that the lowest basis for the season on extra staples has been touched.

Sak. Cottons Slump

New lows for the season on Egyptian Sak. contracts were touched at Alexandria yesterday when the November option sold down to $29.26 and a fully good fair Sak. for November shipment could be bought c.i.f. Boston at around 32c. The Upper options were weak but relatively stronger than Sak., the December contract selling down to $19.80 yesterday and advancing at the close today to $20.08; the latter figure shows a decline of 79c. for the week, whereas November Sak. at today's closing of $29.56 is off $1.82 for the week. The January Sak. contract is a little firmer with a net decline for the week of only $1.74. The thread trade and fine goods manufacturers are doing little in Egyptians at present, but there is a fair demand from the tire trade for a high grade Sak. at around 33c.; purchases by the tire trade of Sak. at the latter price may account for recent weakness in new crop Pima, which, although nominally held on the basis of 37c. for No. 2, is reported available one to two cents lower.

Current Quotations

Average prices for Nov.-Dec. shipment of middling and strict middling hard western cotton (Government lengths) are as follows:

	Middling	St. Middling
$1\frac{1}{16}$ in	21 to 21½c.	21½ to 22c.
$1\frac{1}{16}$ in. to $1\frac{1}{8}$ in.	21½ to 21¾c.	21¾ to 22¼c.
$1\frac{1}{8}$ in.	21¾ to 22c.	21¾ to 22¼c.
$1\frac{3}{16}$ in.	23 to 23½c.	23½ to 24c.
$1\frac{1}{4}$ in.	27 to 28 c.	28 to 29c.

Basis on New York, December, 18.12c.

John Malloch & Co., Boston, quote Egyptian cotton c.i.f. Boston for Nov.-Dec. shipment as follows: "Fully good fair" Sak. 33.05c., off 1.60c. "fully good fair to good" Uppers 23.20c., off 0.30c., from Oct. 9. They report closing prices Oct. 16 on the Alexandria exchange as follows: Nov. Sak. $29.56, off $1.82; Dec. Uppers $20.08, off 79c., from Oct. 9.

Burlap Exchange Starts Trading

With more than 50 traders and visitors on hand, the New York Jute and Burlap Exchange opened for trading Oct. 16, at 80 Wall St. A total of 18 contracts, each covering 50,000 yd. of burlap, and 2 contracts of 10,000 sugar bags each were dealt in during the day. The basis grade for burlap is 40 in. 8 oz. standard Calcutta burlap, with suitable differentials for other grades. The basis for sugar bags is the standard Cuban 29x48 with other tenderable grades at suitable premiums and discounts.

December was the most active month on burlaps, prices fluctuating 11 points between the high and low. Buying interest quickened toward the close, the market closing steady at the day's highs. Spot price was 6.25c. December closed at 6.10c.

Future prices on both burlap and bags were in line with those quoted on the outside market.

Liverpool Reports Decline in British Cotton Consumption

The annual statement issued by the Liverpool Cotton Association gives the consumption of all cotton in Great Britain during the season 1928-29 at 2,983,713 bales as against 3,072,698 bales in the previous season. The average weekly consumption was 57,380.

The actual stock of cotton in Liverpool at the close of the season was 756,366 bales, as against 709,138 bales the previous season.

WILDT & CO., LTD.
LEICESTER, ENGLAND
We Buy
KNITTED FABRICS
All Kinds
IN LARGE QUANTITIES
Cable Address—Wildt, Leicester

Dyed and Natural
Raw and Thrown
RAYON
Cops—Cones—Spools
Prompt—Efficient—Reliable
BERGER RA'YARN CO.
57 E. 11th St., New York
Stuyvesant 2375 2376

C. M. PATTERSON
Western Selling Agents for:
Dearnley Bros. Worsted Co., Philadelphia, Pa., Bradford Yarns. Jules Desurmont Worsted Co., Woonsocket, R. I., French Yarns. Excelsior Mills, Union, S. C., Mercerized Yarns.
222 West Adams Street CHICAGO, ILL.

RAYON
TOPS - NOILS - PICARDED
SPUNRAYARN
ABEECO MILL, INC., 505-5th Ave., New York City
Canadian Representatives:
Wm. B. Stewart & Sons, Ltd., Toronto—Montreal

S. GUTNER & BROS.
RAYON
Crown Brand Exclusively
Natural and Converted
We recommend Crown Brand Rayons for Knitting and Weaving.
Let us serve you.
"Our Motto is Service."
8-14 West 30th St., New York

Raw Silk, Thrown Silk, Rayon and Karded Yarns
Carolina Yarn & Supply Co.
Manufacturers Agents
Burlington, N. C.
Southern Rep. for American Safety Seaming and Looping Tables

WILLIAM RYLE & CO.
381 Fourth Ave., Cor. 27th Street, New York
Thrown Silk Yarns
For Silk, Woolen Worsted, Cotton and Knitting Mills

OSCAR HEINEMAN CORPORATION
RAW & THROWN SILK
ARMITAGE, FAIRFIELD and WASHTENAW AVENUES, CHICAGO

RAYON TOP MAKERS
TOPS • *Standard Grades* • NOILS
Bleached—Unbleached—Superfine
ANDREW K. HENRY
158 Summer Street, BOSTON, MASS.

RAYON TOP MAKERS
JOHN R. STEWART CO.
241 CHESTNUT ST., PHILA., PA.
NEW ENGLAND REPRESENTATIVES
SCOTT D. STONE, INC. 210 SUMMER ST, BOSTON, MASS.

Cooperation to Aid Rayon

German Executive Emphasizes Steps Being Taken Abroad

By Dr. Fritz Blüthgen
President, Vereinigte Glanzstoff A. G.

RAYON values are now showing a decline and the shareholders are fearing a depreciation of their holdings as compared with last year, not only in Germany but in other countries where this material is produced. It can be explained by the fact that a considerable fall in prices has taken place during the last year, causing a shrinkage of the margin of profits.

In Germany, this state of affairs has been very marked, due to the fact that at the beginning of the year the Deutsch Viskose-Kunstseiden Konvention (German Rayon Convention) allowed prices to fall on the German market, resulting in a corresponding drop in prices by the competitive home and foreign producers. The frictionless unity of effort whih existed formerly to the advantage of all producers, has been severely shaken during the last year by excessive production.

Dr. Blüthgen, who prepared the accompanying message for readers of *Textile World*, is identified with many rayon projects. In addition to being president of Vereinigte Glanzstoff A. G., he is a director of Glanzstoff - Courtaulds G.m.b.H., American Glanzstoff Corp., American Bemberg Corp., Associated Rayon Corp., Snia Viscosa, and others.

There is at the present time in the rayon industry an effort being made to bring about a mutual cooperation, but this meets with difficulties in the way of building up the industry for the groups interested. These cannot, however, be considered insurmountable. One step in this direction is the combining of the interests of the Dutch Enka Gesellschaft and the Glanzstoff Gesellschaft, as also the fusion of the chief Italian producers into a definite convention on the basis of a turnover contingency. Further, there has been in Germany for the last year a combined effort to reintroduce the regulation of prices, with the consent of the foreign importers, within the German Viscose-Rayon Convention.

Hand-in-hand with the understanding on the sales market there is an effort towards union in the technical part of the industry which is to normalize and improve the products of the rayon trade, and to reduce costs and seek fresh openings for the material produced. The largest European producers have repeatedly sent their representatives to discuss these questions and even though the solution of the biggest problems is still lacking it is to be hoped that the gradual understanding will work to advantage upon the international trade in this branch.

The circles with which I am in touch support to the best of their ability a policy of understanding because only by this means can the present difficult situation be mastered and a certain stability brought into the jerky price and product conditions which have existed for some time. Even though the value of the rayon industry is now at a low ebb on account of the pronounced struggle for the market and the sharply cut prices, especially in the case of smaller producers, the position on the whole may be contemplated with composure.

Such conditions are not permanent, and can be removed by an improved demand. The well-established firms and the competitive capacity of the producing groups, will help to bring about a solution to the weakness of the market, without damage to the industry, by means of favorable marketing and adjustment of prices.

Domestic Rayon Quotations

(Producers' List Quotations)

Viscose Process

Denier	Filament	First Quality	Second Quality
75	18	$2.35	$1.50
75	30	2.45	1.35
100	18	1.95	1.60
100	40	2.00	1.65
125	18	1.45	1.25
125	36	1.50	1.30
150	24–32	1.15	1.10
150	36	1.20	1.15
150	60	1.35	1.30
150	75	1.50	....
170	24–27	1.15	1.10
170	60	1.35	1.30
200	30	1.10	1.05
200	60	1.30	1.25
300	40–60	1.00	.95
400	72	1.10	.95
450	54	1.00	.95
600	72–96	1.00	.95
900	100–144	1.00	.95

Nitro-Cellulose Process

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
35	$3.50	$3.25	125	$1.45	$1.25
50	2.75	2.50	140	1.15	1.10
75	2.35	1.65	150	1.15	1.10
100	1.95	1.60	160	1.15	1.10
			175	1.15	1.10

Cuprammonium Process

Denier	Filament	Price	Denier	Filament	Price
15	25	$4.15	40	30	$3.15
25	25	3.65	52	30	3.00
30	25	3.40			

[Due to diversified offerings prices for higher deniers are not listed.]

Acetate Process

Denier	Price	Denier	Price
45	$3.00	120	$2.30
55	3.00	150	1.90
75	2.55	200	1.90
100	2.40	300	2.20

Rayon Waste

Open bleached waste	$0.35–$0.36
Open unbleached waste	.32– .33
Bleached thread waste (mfrs.)	.... .16
Colored thread waste	.... .10
Colored clips	.... .10

Converted Rayon Waste

Bleached tops	$0.60 –$0.61
Unbleached tops	.52 – .56
Bleached noils	.... .26
Bleached garnets	.36 – .44
Unbleached garnets	.30 – .32
Colored garnets	.... 23 – .

Yarn Shipments Continue Backward

In Hope of Catching Up by Jan. 1 Producers Discourage Nearby Sales

THE shortage of second quality rayon yarns became more pronounced during the week and one of the leading producers announced that his firm was "sold out" indefinitely on all seconds in the finer deniers. This firm is selling second quality in the coarser deniers such as 300s, 450s and 600s, but is taking no orders for seconds below 300 denier. The trend toward future buying continued, and manufacturers placed substantial business for November and December. Several firms are booked solid on their anticipated November production of the popular deniers, such as 150s and 100s; they are still writing business for December, but report that that month also is rapidly being covered.

Demand comes about equally from knitters and weavers. New England cotton weavers consumed a surprising quantity of yarn during September, and the demand, while it has not increased, shows no sign of decline. The approach of Christmas has spurred underwear knitters to pressure production. These mills look for a record holiday gift business in rayon garments.

Shipment is still behind on the popular deniers, and some producers are discouraging sales in the hope of catching up with demand before the first of the year. Spokesmen for several firms said they were anxious to find themselves abreast of orders by January, and to this end, were discreetly making an effort to slow up nearby business.

Highest Grade
RAW *and*
THROWN SILK

Especially for
HOSIERY MANUFACTURERS

OUR own direct source of supply in Japan insures a uniform quality of the very best grade of silk obtainable.

NEW YORK OFFICE
267 Fifth Avenue

JAPAN OFFICE
Teisan Bldg., Yokohama

SILK AND SILK YARNS

Raw Silk Drops 5 to 10c.

Active Buying Follows Decline—Importers Encouraged

RAW silk registered a new decline this week; all Japans fell about 5c. and the Cantons dropped 10c. Unlike previous drops, this recession was effective in spurring new interest in the consuming market. Weavers placed a fair amount of business for spot shipment. It was the hosiery knitters, however, who gave the importers the most encouragement; these knitters went into the market in real business mood and bought quite extensively, all on future basis; the hosiery business did much to cheer the importers, who had been somewhat depressed by the weakness of the last four weeks. Some of the hosiery producers placed orders as far ahead as next April.

The raw silk market, as a whole, is not active. Conditions are better than they have been, but prices are still soft. Observers were of the belief that the corner has been turned in the recession and that a stronger market will develop soon. One point in favor of such a surmise, is the fact that the broadsilk trade is getting ready to begin production of spring lines; the real start on these fabrics will not be under way for some weeks—not until the current openings have been completed and buyers have registered some tendency regarding the new numbers.

However, the mills have but little raw silk on hand, and it is expected that they will soon be obliged to stock up, against the start of spring production. It is felt that the other industries which consume raw silk also will begin winter activity soon, necessitating extensive purchases.

Trading on the Silk Exchange was spotty, with prices variable. Futures were better than nearbys, as a rule, though there was no real strength manifest at either end. Manufacturers held to emergency needs, for the most part in their buying, the only exception being that of the hosiery industry.

Silk and Silk Yarn Quotations

Thrown Silk

(60 day basis)

Japan organsine, 2 thd. grand XX in skeins	$6.40
Japan organsine, 2 thd sp. crack in skeins	6.25
Japan crepe, 3 thd. grand XX in bobbins	6.55
Japan crepe, 3 thd. sp. crack on bobbins	6.20
Japan crepe, 4 thd. crack on bobbins	6.15
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	4.90
Tussah tram, 2 end on cops	2.75
Hosiery tram, 3 thd. Japan XXX	6.85
Hosiery tram, 5 thd. Japan G XX	6.10
Hosiery tram, sp. crack XX	5.85
Hosiery tram, crack XX	5.75
Hosiery tram, XX	5.65

Spun Silk Yarns

Terms: 2% 10, net 60

40/2	$4.35	60/2	$4.65
50/2	4.55	62/1	3.60

Raw Silk

(60 day basis)

Japan filature, grand XX, 13/15	$5.35
Japan filature, sp. crack XX, 13/15	5.15
Japan filature, crack XX, 13/15	5.05
Japan filature, XX, 13/15	5.10
Japan filature, best X, 13/15	4.85
Japan filature, X, 13/15	4.80
Canton filature, new style, 14/16	3.70
Canton filature, new style 20/22	3.35
Tussah filature, 8 cocoon	2.20
Grand XX (Yellow) 20/22	4.95
Grand XX (White) 20/22	4.95
Sp. crack (Yellow) 20/22	4.90
Sp. crack (White) 20/22	4.90
Crack (Yellow) 20/22	4.90
Crack (White) 20/22	4.90

National Raw Silk Exchange

	Close Oct. 9	For the Week High	Low	Close Oct. 14	Net Chg.
October	4.92	4.95	4.86	4.94	+.02
November	4.94	4.95	4.88	4.94	.....
December	4.94	4.95	4.88	4.94	.....
*January	4.93	4.98	4.92	4.92	—.01
*February	4.94	4.97	4.93	4.92	—.02
*March	4.94	4.97	4.92	4.92	—.02
*April	4.92	4.94	4.91	4.92	.....
*May	4.93	4.94	4.91	4.92	—.01

Oct. 9 to Oct. 14—Total contracts 328 (321 new; 7 old). Total number of bales, 3,245; total approximate value, $1,157,925.

*New 10 bale contract basis.

Spun Silk Demand Continues Active

Broadening of Consuming Market Encourages Spinners—Futures Improve

Manufacturer interest in spun silk continued strong, and prices were firmer. All yarns, both single and double, were in demand. The feature of the fall season in this market is the pronounced trend toward a wider consumption.

Weavers are steadily becoming more convinced of the attractive fabric possibilities of spun yarn, and are exerting special efforts to develop this end of the market. Shantungs are particularly important at the broadsilk end, and the good turnover being enjoyed by the weavers, has had the normal effect of encouraging increased demand for spun yarns.

Current business is divided between spot and future. There was a slight increase in advance bookings, and spinners are much encouraged. The outlook for the season indeed, is very satisfactory. Manufacturers are buying confidently and seem anxious to exploit spun silk fabrics to their maximum. Production of yarn is normal, with a fair amount available, and no difficulty in making shipments.

Thrown Silk Weak, Prices Down 5c.

October Behind Normal in Sales—Broadsilk Openings May Spur Interest

Thrown silk demand continued slow, and neither weavers nor knitters showed any sign of early activity. Throwsters in the New York market are much interested in the technical subjects scheduled for discussion at the International Raw Silk Conference; the quiet prevailing in their own market permitted them to absent themselves from their offices frequently during the week, and they attended numerous sessions of the conference.

Thrown silk sales for October are considerably behind those for the same month last year. The lack of buying, plus the current weakness in raws, has softened prices. Quotations fell about 5c. all along the line, this week. The drop had little effect on buying. A few additional orders were reported here and there, but the flurry was temporary.

Throwsters are satisfied that the current non-buying attitude cannot last much longer, and their attitude now is one of patiently waiting. Neither weavers nor knitters have any great supplies of yarn on hand, and active buying is expected shortly. The broadsilk spring openings will help yarn movement, once they have been completed and lines have started to move, it is believed.

Silk Exchange $6,000,000 Turnover in Week Sets Record

Record volume of trading continued on the National Raw Silk Exchange during the week ended Oct. 5, a total of 9,070 bales, with aggregate value of approximately $6,000,000, being traded. This was 460 bales ahead of the previous weekly record and 6,150 bales in excess of the volume for the corresponding week last year, as well as being 2,120 bales more than transactions for the entire month of September last year.

Army Asks For Serge Bids

PHILADELPHIA.—Bids have been asked by the Depot Quartermaster, U. S. Army, to supply them with 2,500 yds., olive drab serge, 16 ozs., 56″ to 58″ wide, for caps. Bids will be received Oct. 29.

Anchor Knitting Mills of Robert Ablett & Co., Whitesboro, N. Y., are running overtime with many additional workers.

MONOMAC
French Spun Yarns

ZEPHYR
2/40 9sZ Grade

Spun from Domestic or Australian Wools

MONOMAC SPINNING CO · LAWRENCE MASS

WILLIAM WHITMAN COMPANY, INC.
Selling Agents
261 FIFTH AVENUE, NEW YORK
BOSTON · PHILADELPHIA · CHICAGO · CHARLOTTE

Pocasset Worsted Company, Inc.
Worsted Yarns

In the Grey, Mixtures, and Colors

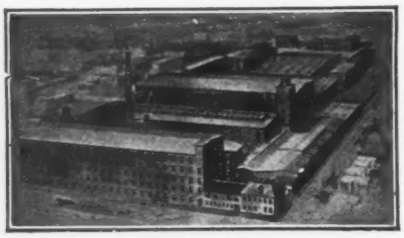
Office and Mills — *Thornton, R. I.*

James Lees & Sons Co.
Manufacturers of
WORSTED and WOOLEN **YARNS**
for Weaving and Knitting
also
Minerva Yarns for Hand Knitting and Crocheting
Mills and Main Office—Bridgeport, Pa.
New York Office—230 Fifth Avenue

WARNER J. STEEL
Worsted Yarns
for Weaving and Knitting
Tops
Mills and Office: Bristol, Pa.
SELLING AGENTS
Fry & Crawford — 400 Chestnut St. Philadelphia, Pa.

New York Agency: Metropolitan Bldg.
WM. H. GRUNDY CO., Inc.
108 S. Front Street, Philadelphia
Tops and Worsted Yarns
for
Men's Wear, Dress Goods and Knitting
Trade both in Grey and Mixtures

Thos. Wolstenholme Sons & Co., Inc.
Frankford Ave. & Westmoreland St. — P. O. Station "E"
Philadelphia, Pa.



Underwear
Hosiery Sweater
Weaving

YARNS

Colors, Oxfords and Fancy Mixes

French and English Spun Worsted
French Spun Worsted Merino
Representatives: BOSTON—E. Geoffrey Nathan, 69 Prentiss St.
CHATTANOOGA—Cosby & Thomas, James Bldg.
LOS ANGELES—Arthur Bone, 4366 Worth St.

O. J. CARON
Worsted and Worsted Merino
YARNS
222 WEST ADAMS ST., CHICAGO

WORSTED FRENCH SPUN YARNS
For Knitting and Weaving
JULES DESURMONT WORSTED CO., Woonsocket, R.I.
Philadelphia and Southern States—Thomas H. Ball, 1015 Chestnut St., Philadelphia, Pa.; New York—Charles Heyer, 1 Madison Ave.; Chicago—C. M. Patterson, 222 W. Adams St.; Boston and New England States—Walter W. Skerry, 10 High St., Boston.

WORSTED YARNS

More Single Yarns Used

Large Volume Sold For Sweater Coats

PHILADELPHIA.

AN ACTIVE call has been in evidence from outerwear concerns, a large volume of both single and two-ply yarns being taken by manufacturers of sweater coats. For the first time there has been an expansion in demand from men's wear mills, these manufacturers having been operating in most instances during recent weeks upon contracts which they had placed with spinners last June. Several of them have been in the market this week, placing new contracts for mixtures.

This is one of the outstanding features of the sales yarn market, there being an active call for colored yarns and mixes both from weavers and knitters while yarns in the oil have been neglected by both trades to a larger degree than in the memory of veterans in the business. Men's wear mills are not interested in white yarns, taking mixtures more so than last season and spinners of the latter are working overtime in a larger number of instances, while spinners of white weaving yarns are in need of business.

Mixtures More Active

Although there has been nothing to indicate any change in the strength of knitting counts used by sweater manufacturers there has been a slightly easier tone to weaving counts. While spinners have not made changes in quotations, manufacturers have been able to place contracts at slightly lower figures this week, according to several. Demand from men's wear concerns has been largely centered in 2-30s mixes, Bradford and French spun being specified.

The spurt in sales to outerwear manufacturers continues and although it has been slightly less decided this week than last it is too early to say this indicates demand is beginning to slacken. Spinners of outerwear counts are finding a good demand and they see nothing to show the requirements of knitters have yet been satisfied.

A new development in this connection has been the exceptionally large volume of single yarns that has been taken by manufacturers of sweater-coats. In former years manufacturers mainly used single worsted in conjunction with cotton. This season all-worsted garments are being made from single yarns and spinners specializing in single assert they have sold almost twice as much single yarn for sweaters this season than in any previous one.

Single Yarn for Sweaters

Single yarns were largely used in manufacturing the 1929 bathing-suits and while the trend was strongly in that direction it was not so noticeable as the present call from sweater-coat manufacturers as most all-worsted sweaters were formerly made from two-ply counts. The sweater-coat made from single yarn is intended mainly to bring yarn costs down and yet produce a knitted garment that is fairly heavy and closely knit to hold the shape. Knitters, spinners and machinery builders working together assert they have overcome former difficulties along these lines.

There has been no change in the price situation, spinners continuing to quote from $1.30 to $1.32½ on 2-20s, 50s and the higher priced firms state they have been able to sell at the $1.32½ level, although there are others willing to sell in volume at the lower level, giving the customer high grade yarn for the price. There is nothing in the market this week to indicate any advance in prices from the present level is in prospect. Dyed yarn is selling on the basis of $1.45 to $1.47½ for 2-20s, jobbers being willing to sell at the lower level. Spinners selling bulk of their yarn dyed will not be able to advance prices until jobbers have raised their price or are sold ahead.

Worsted Yarn Quotations

(Corrected Close of Business Wednesday)

Bradford System

2-12s, low, com. (36s)	$1.00 -$1.05
2-16s, low com. (36–40s)	1.05 – 1.10
2-20s to 2-24s, low ¼ (44s)	1.15 – 1.20
2-20s to 2-26s, ¼ bld. (46–48s)	1.25 – 1.30
2-26s to 2-30s, ¼ bld. (48s)	1.37½ – 1.40
2-30s to 2-32s, ¼ bld. S. A. (46s)	1.35 – 1.40
2-32s, ¼ bld. (48–50s)	1.45 – 1.47½
2-20s, ½ bld. (56s)	1.45 – 1.50
2-26s, ½ bld. (56s)	1.50 – 1.55
2-36s, ½ bld. (56s)	1.60 – 1.65
2-32s, ¾ bld. (60s)	1.65 – 1.70
2-36s, ¾ bld. (60s)	1.70 – 1.75
2-40s, ¾ bld. (60s)	1.75 – 1.80
2-50s, high ¾ bld. (64s)	1.85 – 1.90
2-50s, fine, (66—70s)	1.95 – 1.97½
2-60s, fine, (70s)	2.30 – 2.35

French System

20s, high, ¼ bld. (50s)	$1.40 -$1.45
20s, ½ bld. (56s)	1.47½– 1.50
26s, ½ bld. (56s)	1.52½– 1.55
30s, ¾ bld. (60s)	1.65 – 1.67½
30s, fine warp (66–70s)	1.75 – 1.77½
40s, ¾ bld. (60–64s)	1.72½– 1.75
50s, (66–70s)	1.92½– 1.95
60s, (70s)	2.27½– 2.30

Knitting Yarns in Oil (Bradford)

2-20s, low, ¼ bld (44s)	$1.10 -$1.15
2-18s to 2-20s, ¼ bld. (50s)	1.30 – 1.32½
2-26s, ¼ bld. (50s)	1.36 – 1.38½
2-30s, ¼ bld. (50s)	1.40 – 1.42½
2-20s, ½ bld. (56s)	$1.45
2-20s, ¾ bld. (60s)	1.65 – 1.67½

French Spun Merino White

30s, 50–50	$1.27½-1.30	30s, 70–30	$1.47½-$1.50
30s, 60–40	1.37½-1.40	30s, 80–20	1.57½– 1.60

Top and Noil Quotations

Tops—Boston

Fine (64–66s)	$1.15-$1.16
Half-blood (60–62s)	1.13– 1.15
High ½ blood (58s)	1.08– 1.13
Aver. ½ blood (56s)	1.05– 1.08
Low ½ blood	1.00– 1.03
High ¼ blood (50s)	.97– 1.00
48s N. Z.	.95– .98
46s S. A. and N. Z.	.93– .95
44s S. A. and N. Z.	.85– .87
40s S. A. and N. Z.	.83– .85
36s S. A. and N. Z.	.82– .83

Noils—Boston

Fine	$0.70-$0.73	Low ½ bld.	$0.58–$0.60
Half-bld.	.68– .70	High ¼ bld.	.55– .58
High ½ bld.	.65– .68	46s	.53– 55
Aver. ½ bld.	.60– .63	44s	.50– .53

Tops—Bradford, Eng. (Oct. 11)

Fine (70s)	36d	½ bld (56s)	26d
Fine (64s)	31d	¼ bld (50s)	23d
½ bld. (60s)	30d	Cross-bred (46s)	21d
½ bld. low (58s)	28d		

Fine Top Trend Points Downward

Lower Basis in Boston—Bradford Slumps to Pre-war Level—Noil Market Sluggish

BOSTON.—The general basis for merino tops in the local market is on a lower level with fine tops obtainable at $1.15 and choice half bloods at about the same price. Any large amount of new business is not seen at this time. The fine wool situation is too unsettled to expect any favorable buying reaction. The slump in wool prices in the foreign markets brought about an almost complete demoralization of the fine top industry in Bradford where at this time merino tops have fallen back flat upon 1914 price basis. The fine crossbreds are still approximately 9% above the pre-war basis, while the low crossbreds, which constitute the strongest wool group, are about 28% above July, 1914, basis. The table herewith shows the situation:

	Pence		
	Current Price	1914 Price	Advance
Merino group	32	32	.....
Fine crossbreds	23½	21½	8.5%
Low crossbreds	20½	16	28.0%

Mills are not showing any large interest in noils. They are under the impression that the depressed situation in wools will prevent the noil market from registering any comeback, especially when the large output which shows no signs of diminishing is taken into account. The larger houses with noils on contract as well as several of the houses on Summer Street who are wool combers are not disposed to follow the market downward except to a limited degree. The general line of noil quotations must be considered nominal. The tendency of the market is rather strongly in favor of the buyer.

Clean Paraffined Strap

makes the Best Textile Shipment

The Signode Tensional Steel Strapping System with its rugged quick acting tools and strong, clean paraffined strap, is best for all types of textile shipments. Remarkable dollar savings, reduction of freight costs, reduction in volume, and elimination of pilfering are a few of the outstanding advantages.

Call for demonstration or let us send you a sample seal and general catalog No. 15

Signode Steel Strapping Company
2620 N. Western Ave., Chicago, Ill., U. S. A.
Canadian Steel Strapping Co., Ltd., Montreal, Quebec
Offices in Principal Cities

SIGNODE

The Sealed Steel Strapping

(We also manufacture round wire tensional reinforcements, all forms of nailed strapping wire tying machines, pail clasps, clutch nails, tag fasteners, etc. Write for general catalog.)

LOGEMANN

Hand-Belt-Electric-Hydraulic

Baling — Presses

From year to year, hundreds of new names are added to the list of LOGEMANN baling-press users in the textile field.

Every year, repeat orders from users of LOGEMANN baling-presses increase steadily, denoting the satisfaction derived from this equipment.

But—

Until every mill-owner, superintendent, and operator, is familiar with the LOGEMANN line of balers for yarn, waste and finished goods, our advertising has not accomplished its purpose.

We solicit your inquiries. *See also* CONSOLIDATED TEXTILE CATALOG

LOGEMANN BROTHERS CO.

MAIN OFFICE & WORKS

3100 Burleigh St., Milwaukee, Wis.

HILLSBOROUGH MILLS
WILTON, NEW HAMPSHIRE

WORSTED YARNS AND TOPS

Fine Weaving Yarn
Colored and White

COMMISSION DYEING OF YARN AND TOP

Chautauqua Worsted Mills

Bradford Yarns Every Description

JAMESTOWN, NEW YORK

MERRIMACK CARD CLOTHING CO.
MANUFACTURERS OF
CARD CLOTHING
NAPPER CLOTHING
ANDOVER, MASSACHUSETTS

THIS dyeing establishment has grown steadily ever since the business was started. Every job regardless of how small or large receives the same careful treatment. No poor penetrations or off-shades. We specialize in WOOL, TOPS and YARNS. Send us a trial order.

FLORENCE DYE WORKS
WOONSOCKET, R. I.

Julien J. Guerin
Pres. and Gen. Mgr.

FALLS YARN MILLS
WOONSOCKET, R.I.
Incorporated 1904
Fine Woolen and Merino Yarns
Sole Representative:
H. R. SHIRLEY
Packard Building, Phila., Pa. 170 Summer St., Boston, Mass.

Everything for Textile Printers
And for Bleachers, Dyers and Finishers
ENGRAVING MACHINERY AND SUPPLIES
HURLEY-JOHNSON CORP.
25 Walker Street, New York City
Branch Office: 15 Pine Street, Providence, R. I.

WOOL AND SUBSTITUTES

Pressure on Fine Wool Relaxes

Selling Apparently Overdone But No Major Improvement in Sight

BOSTON.

THE wool market is breathing a little more easily now that London is out of the picture until Nov. 19 and Australian offerings have been greatly restricted. Frightened holders of fine domestic wool are now wondering why they did it and mill buyers are congratulating themselves on their ability to recognize the psychological moment to purchase additional supplies. That the cheaper wool recently bought will help the manufacturers to secure a better operating margin may be doubted so long as the goods market is so adept at capitalizing to its own advantage even a temporary decline in wool values.

The foreign markets show little or no change for the better. The restriction of Australian offerings between now and Christmas will probably help the immediate market for wools but the stocks will still be there and will have to be offered during the second half of the season. The fine wool section of the market therefore is not out of the woods by any means and on top of its present trouble comes the official estimate of the New South African clip at 302,000,000 lb. as compared with 285,000,000 lb. last season, a gain of 17,000,000 lb.

A rather unusual situation has developed during the last few weeks in the Boston market which has come to a head with ⅜s blood domestic wool quoted at the same clean price as strictly fine staple wool. At this time fine staple wool and ⅜s blood staple wool are quoted around 90c. Strictly fine wool is selling below its normal value as related to other wools. The general explanation is that the supply has been larger than the demand, the demand itself being less than would have occurred in normal times with worsted production running at such a good rate of capacity. Although the worsted season is much better than it has been for the last three or four years the fine tops in demand have been generally below strictly staple, and this has led to a constant demand for the French combing type and shorter-fibered fines while the strictly staple materials have been comparatively neglected.

The unsettled position of fine wools in London and the Colonies threatens to bring about further readjustment on a declining scale of similar domestic qualities. The London sales which were abbreviated very considerably closed with prices all on the low level of the year and a weak support.

The slaughter in wool prices was brought about by the apparent necessity for liquidation on the part of Continental and Bradford speculative owners who wished to get out from under before the Australian clip by its immense weight forced lower price levels. Incidentally, it appears as though Bradford manufacturers, especially topmakers, are still wedded to their old habit of carrying wool stocks sufficient to keep them going for nine or twelve months.

Wool Quotations

Ohio, Pennsylvania and West Virginia	
Fine delne	$0.37 -$0.38
Fine clthg	.31 - .32
¼ blood	.43 - .44
⅜ blood	$0.45 -$0.46
½ blood	.43½- .44
Texas and California	
Texas, 12 months	$0.88 -$0.90
California, Northern	.83 - .87
Pulled—Eastern (Scoured Basis)	
A.A	$0.95-$0.97
A-Super	.88 - .90
B-Super	$0.78-$0.80
C-Super	.70- .73
Montana, Idaho and Wyoming (Scoured Basis)	
Staple fine	$0.88-$0.90
Staple fine ¼ bld	.90- .93
Fine and fine medium	.88- .90
¼ blood	.88- .90
½ blood	.78- .80
Mohair—Domestic	
Best carding	$0.48-$0.50
Best combing	.65- .68
Mohair Foreign (In Bond)	
Turkey fair, average	$0.41-$0.43
Cape firsts	.43- .45
Foreign Clothing and Combing (In Bond)	
Australian:	
70s	$0.77-$0.80
64s	.65- .68
58s-60s	.63- .65
Montevideo:	
58-60s	$0.39-$0.40
56s	.39- .40
50s	.37- .38
Buenos Aires:	
48, 40-44s	$0.31-$0.32
58, 36-40s	.29- .30
Foreign Carpet (Grease Basis in Bond)	
China: Combing No. 1	$0.28 -$0.29
China Filling Fleece	.25 - .26
Szechuen ass't	.27 - .28
Cordova	.25½- .26
Scotch black face	.27 - .28
East India: Kandahar	.36 - .38
Vican'r	.41 - .43
Joria	.41 - .43
Aleppo	.38 - .39

Substitute Quotations

Wool Waste	
Lap—Fine white	$0.98 -$1.00
Fine colored	.83 - .85
Thread White Worsted—Fine	.72 - .75
¼ blood	.53 - .55
Thread Colored Worsted—Fine two-ply	.45 - .48
¼ blood, two-ply	.30 - .33
Card—Fine White	.48 - .52
Medium white	.28 - .32
Old Woolen Rags (Graded for Mfrs.)	
Merinos—Coarse light	$0.07½-$0.08½
Fine dark	.06 - .06½
Fine light	.19 - .20
Serges—Blue	.10½- .11½
Black	.09½- .10
Red	.14 - .15
Knit—White	.42 - .43
Red	.20 - .21
Light hoods	.22 - .23
Worsteds—Light	.07 - .07½
Blue	.11 - .12
Black	.10 - .11

Woolen Rag Basis Holds Very Steady

Mixed Rag Collections Have Been Unaffected by the Decline in Virgin Wools

BOSTON.—Mixed soft woolens remain on a strong basis. Decline in the wool market has left these materials unaffected. The woolen rag market in both mixed and graded rags must be considered somewhat out of a line on the high side as related to wool, its wastes and by-products. It is difficult to attain desirable packing of mixed softs lower than 11c. Collections in both this country and in England are said to be well below pre-war volume and the general character of the rags collected has undergone some change particularly in the smaller bulk obtainable of blue, black and brown serges.

There seems more confidence shown by consuming mills and while they still use all possible pressure to beat down rag prices they are nevertheless not quite so successful in such operations as they have been hitherto. More encouraging reports are received also from recovered wool plants in New England and the fact that the machinery of the woolen branch is running strongly at 75% is considered a rather good omen for better business.

Substantial imports of old materials arrived in New York during the month of July, statistics just to hand. The full amount imported was 719,000 lb. of which 576,000 lb. came from England at 26c. per pound. Imports for July into Boston were 417,000 lb. of which amount 197,000 lb. came from England at 49c. per pound. This is an unusually high average value for English imports and is probably owing to a good-sized proportion of high-grade clips in the import. Imports into Philadelphia for July were 89,000 lb., the largest amount of 54,000 lb. in England at 31c. a pound.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ending Oct. 12, based upon data compiled by the Market News Service of Bureau of Agricultural Economics, Department of Agriculture, are as follows:

	Week Ended Oct. 12	1929	1928
Domestic	1,500,000	191,339,000	196,700,000
Foreign	478,000	83,726,000	79,990,000
Total	1,978,000	275,065,000	276,690,000
IMPORTS AT PRINCIPAL PORTS			
Boston	478,000	83,726,000	79,990,000
Philadelphia	1,152,000	71,801,000	56,193,000
New York	993,000	57,952,000	52,767,000
Total	1,623,000	211,479,000	188,950,000

Laurel Soaps, Oils and Softeners

——and you can always depend on them —to be Uniform

As well as pure, because every step and process in this modern plant is governed by laboratory control.

Incoming raw materials are analyzed, checked and tested so that every batch may be unvaryingly uniform.

Processing is never rushed. Time, temperature and other requirements are met with exactitude that the finished product may be clean, pure and properly aged.

The facilities of this plant as well as nineteen years of experience in textile detergents, oils, softeners and special treatments are available to you.

LAUREL SOAP
MANUFACTURING COMPANY
Incorporated
Wm. H. Bertolet & Sons
2606 East Tioga Street
Philadelphia, Pa.

KNITTING OILS
SULPHONATED OILS
SOAPS
SOFTENERS
BOIL OFF OILS
See Consolidated Textile Catalogs

Laurel Brand

Textile Treatment Specialists since 1909

DYEING AND FINISHING

Southern Chemists to Meet

Piedmont Section of A.A.T.C.C. and Dyers Section of S.T.A. at Charlotte

Officials of the Piedmont Section of the American Association of Textile Chemists and Colorists and the Dyers', Bleachers', Finishers' and Mercerizers' Division of the Southern Textile Association, are confident that the joint meeting of the two organizations, at the Hotel Charlotte, Charlotte, N. C., Oct. 26, will be the largest meeting of its kind ever held in the United States.

An interesting program has been arranged, combining the technical with the practical, and immediately following the luncheon, which is scheduled for one o'clock, four papers will be presented on the following subjects:

1. Chemistry in Relation to Bleaching
2. Chemistry in Relation to Dying
3. Chemistry in Relation to Finishing
4. Chemistry in Relation to Printing

The meeting will then adjourn until three o'clock when the group will enter into a discussion of the subjects covered in the papers. In addition, the annual business meeting and election of officers of the Piedmont Section of A.A.T.C.C., or the ensuing year will be held in the afternoon. The joint banquet at seven o'clock in the Hotel Charlotte will be featured by a few short talks and some clever entertainment.

German-Russian Dye Contract Not Renewed

The contract between the German Dye Industry and the Russian Government which expired on Sept. 21 has not been renewed. The contract concerned technical help and import quotas and a satisfactory basis for renewal has not yet been found. Imports from Germany have declined considerably in recent years and in the first six months of the present year totalled only 562 tons against 1,421 tons in the corresponding period in 1928.

October Meeting of R. I. Section of A.A.T.C.C.

The October meeting of the Rhode Island Section of American Association of Textile Chemists and Colorists will be held Friday evening, Oct. 25, at the Providence Engineering Society, 44 Washington Street, Providence, R. I., at 8:00 P.M.

Dr. M. L. Crossley, chief technical director of the Calco Chemical Co., will speak on "The Effect of Isomerism on Color." A. Newton Graves, Franklin Process Co., Providence, is secretary of the section. The section has been invited to attend the meeting of the American Chemical Society on Monday, Oct. 21, at 8:00 P.M. in the Metcalf Laboratory, Brown University. The speaker will be Dr. J. G. Davidson of the Carbide and Carbon Chemicals Corp., of New York City. His subject will be "Ethylene Derivatives and their Use in Industry".

Chemical Tariff a Target

Senate Expects Attack on Rates on Coal Tar Products

Even if the chemical tariff schedule was of a less controversial character it would receive rough treatment on the Senate floor. As the first commodity schedule to come up, it will have to meet all the opposition which has been seething in the upper house since the tariff was first taken up last January. After the amendments made by the Senate Finance Committee to the House bill are disposed of, the bill will be laid wide open for amendments from any or all of 96 Senators. The prospect is that the chemical schedule will suffer from the trading that will follow if the bill is to be brought to enactment.

Violent attack upon retention of American selling price as a basis for the assessment of duties upon coal tar products under paragraphs 27 and 28 is expected. The measure of protection accorded by this provision undoubtedly will be opposed as too high. Although retained by both Senate and House Committees, there was strenuous objection from Senator King and other minority members which indicates that if the ranks of the Democratic-Republican-Independent coalition are not divided, the American selling price procedure will be forced into the discard.

Coal tar products in paragraphs 27 and 28 were subject to a reduction but not to an increase in duties under the flexible tariff machinery set up by the 1922 act. This provision that the rates on products dutiable on the basis of American selling price could not be increased subsequently by presidential proclamation was stricken out by the House committee and the Senate committee concurred. If, as some people think, coal tar products have too much protection as it is, the probability is that this restrictive clause will be restored. Otherwise, under any form of flexible tariff procedure that may be adopted, the ad valorem rates on coal tar products might be later increased even though they are materially reduced by the bill as it finally passes.

Domestic dye manufacturers regard the action of the Finance Committee in reducing the duties on synthetic indigo and sulphur black to 3c. per lb. and 20% ad valorem as the opening wedge for hammering down the rates on other coal tar products.

Clothing Cotton Converters Organize

Association Aims to Better Standards, Adjust Disputes and Aid Goodwill

ALBANY, N. Y.—An organization of clothing cotton converters, to be known as the Clothing Cotton Converters' Association, has been chartered under the laws of New York State. The aims of the association, as set forth, are to promote the interest of converters by improving business standards in the industry, by providing facilities for adjustment of disputes and to encourage the spirit of brotherhood in the industry generally. The organization will have headquarters at 43 E. 12th St., New York. Supreme Court Justice Mullan consented to the formation of the association on Oct. 9.

The incorporators are well known in the converting trade. They follow: Isidor H. Friedman, Mount Vernon; Harry C. Oppenheimer, Crestwood; Edgar G. Minton, New York; Samuel Greenblatt, Brooklyn; Emanuel Strang, Brooklyn; Walter Cohen, New York; Milton Hesse, White Plains and Julius Freeman, New York.

National Fuel Meeting

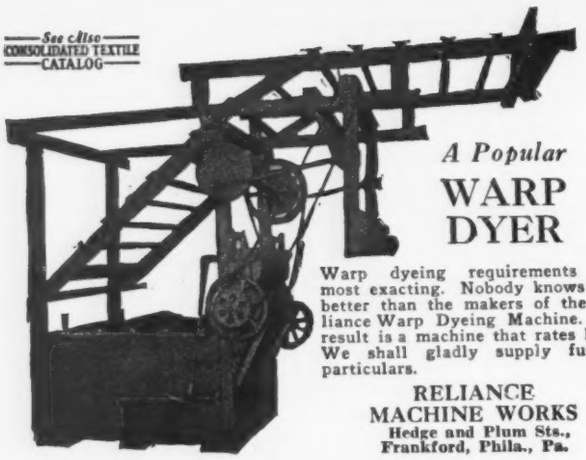
Phila. Section, A.S.M.E. Host on Third Anniversary

PHILADELPHIA.—The Fuels Division and the Philadelphia Section of the American Society of Mechanical Engineers held the third National Fuels meeting at the Bellevue-Stratford Hotel, Oct. 7 to 10. The meetings were well attended and the various papers presented, together with discussions that followed each, were the subject of favorable comment from members and guests. The sessions were opened on Monday by Mayor Mackey and later that day inspection trips were made to the League Island Navy Yard where they inspected the fuel oil testing plant and the naval aircraft building.

The plant of Philip Carey Co. was next visited which represents the latest design in industrial powdered coal installations, laid out by W. E. S. Dyer, Philadelphia, and consisting of Badenhausen boilers and Riley pulverizers. On Tuesday the Pennsylvania Railroad heating plant consisting of two 2,600-hp. Walsh-Widener boilers and Taylor stokers as designed by the United Engineers & Constructors, Inc., were seen.

American Engineering Co. afforded the meeting an opportunity to see the manufacture and working of the Taylor stoker and other of their products. Thursday afternoon an inspection trip

See also CONSOLIDATED TEXTILE CATALOG



A Popular
WARP DYER

Warp dyeing requirements are most exacting. Nobody knows this better than the makers of the Reliance Warp Dyeing Machine. The result is a machine that rates high. We shall gladly supply further particulars.

RELIANCE MACHINE WORKS
Hedge and Plum Sts., Frankford, Phila., Pa.

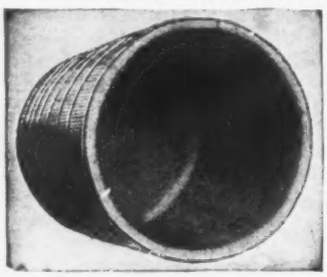
HUNGERFORD FILTERS
INVERSAND Water Softeners

See also CONSOLIDATED TEXTILE CATALOG

One Billion gallons of water filtered and softened *daily*

HUNGERFORD & TERRY INC.
CLAYTON, N. J.
Established 1898

RUBBER LINED
"WOOLFORD WOOD TANKS"



lined by our experts, in our own factory, make the best Acid Containers. The perfect, long-lived tank for Scouring, Dyeing, Bleaching, Carbonizing, Finishing. Put your acid handling problems up to us for solution.

G. WOOLFORD WOOD TANK MFG. CO.
Factory and Office: Darby, Penna.
Mail Address: Paschall P. O., Philadelphia, Penna.

See also CONSOLIDATED TEXTILE CATALOG

Established 1870
John Heathcote & Son
INC.
Providence, R. I.
TENTERING AND DRYING MACHINES
For Woolens, Worsteds, Felts, Plushes, Pile Fabrics, Etc.

See also CONSOLIDATED TEXTILE CATALOG

UPRIGHT—HORIZONTAL
TWENTIETH CENTURY

Good Workmen Deserve Good Tools

This is why so many mills have standardized the

Wyandotte
Quality and Service
Textile Alkalies

These special products insure superior results in yarns and finished fabrics.

Ask your supply man for "WYANDOTTE"

THE J. B. FORD COMPANY
Sole Manufacturers
Wyandotte, Michigan

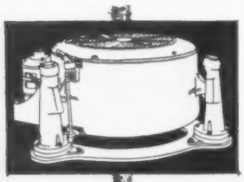
ATLANTIC CHEMICAL CO.
Branch of Consolidated Rendering Company
Manufacturers and Dealers in
58° Sulphuric Acid Acetic Acid
Battery Acid Muriatic Acid Glaubers Salt

Our 58° sulphuric acid is made exclusively from 99½% pure sulphur and is superior for dyeing, bleaching and carbonizing.

Deliveries in Tank Cars, Tank Trucks, Drums and Carboys

Box 1205, Lowell, Mass.
Telephone 5471 Works at South Lowell

The reason—



so many mills standardize on Tolhurst Extractors and speak of them as Tolhursts rather than as Extractors is—

Year after year the Tolhurst Extractor maintains its margin of superiority. Progressive development and specialization assure leadership, not only now but in the future.

See also CONSOLIDATED TEXTILE CATALOG

TOLHURST CENTRIFUGAL EXTRACTORS

New York Office
30 Church St.
Chicago Office:
8 So. Dearborn St.

TOLHURST MACHINE WORKS, Inc.
Est. 1852
Troy, N. Y.

"Tetrakierol"
Reg. U. S. Pat. Off.
Recommended for properly boiling out and bleaching goods containing rayon and colored yarns. . . .
ONYX OIL & CHEMICAL CO., Jersey City, N. J.

Heat CONTROL
Temperature Regulation for every process in the textile industry. Write for Bulletins.
2729 Greenview Ave., Chicago, Ill.
Offices in 37 other cities 4277
THE **POWERS REGULATOR** CO.

was made to Chester to the power plant of the Aberfoyle Mfg. Co., and a thorough examination of this plant was made under the guidance of Edwin Lord, superintendent of the company.

This pulverized coal boiler plant was designed by W. E. S. Dyer, in conjunction with Mr. Lord. Tests show this plant has been operated high as 535% of rated boiler capacity. A number of the members took advantage of the invitation of the Westinghouse & Electric Mfg. Co., to see the Westinghouse stoker and the manner in which this company makes condensers and stokers.

Technical sessions were held on the roof garden of the hotel, being divided into meetings covering fuel problems, stoker meeting, industrial session, smoke abatement meeting, papers on each being presented by authorities in their various lines. A smoker, buffet supper and entertainment were given Oct. 7 and a banquet was held Tuesday evening. Howard A. Hoffer, chairman of the Philadelphia section, was in charge of arrangements for the meeting, assisted by a number of committee.

Engineers Should Attend Power Show

Profits to Textile Mills in Being Represented at Exposition

AT THE Grand Central Palace, New York City, from Dec. 2 to 7 will be held the National Exposition of Power and Mechanical Engineering. It is not putting the matter too strongly to state that every textile mill manager should arrange to have some executive of his plant engineering department attend this exposition for one day at least, and preferably for two days or more.

Monetary Return

The first day should be given to a general survey of the entire exhibit. The second day could then be devoted to a more detailed study and investigation of such of the displays as appealed to the representative and mostly concerned the plant in which he is employed. Working in this way, it would be next to impossible for any intelligently observant person to keep from absorbing facts and information that in some way, sooner or later, would bring to his organization a monetary return. The results would more than compensate for the relatively small expense incurred by sending him to the exposition.

Power engineering and mechanical engineering are developing rapidly these days—almost over night. It is one thing to read descriptive circulars and catalogs, or magazine articles about new devices and equipment; but it is another thing to inspect the devices and equipment at short range, to see them in operation, to study them from all angles, and to talk with the experts who are familiar with them. The former may hold the reader's interest for an hour or so, but the latter will give him food for thought for many hours or days.

Opportunities for Lower Costs

Everywhere today, particularly in New England, the great power companies are seeking to extend their lines and to sell more power to manufacturing concerns, thus shutting down the individual power plants of these concerns. To do this they must prove that they can supply power at a cheaper cost than it can be made at the plant. When a plant uses any considerable amount of steam for process work, the power company will have a difficult task to show a lower cost, unless it wishes to take over the business at a loss. But to be able to make this very creditable showing, the plant engineers must be alive to the many advancements and improvements that are being made, which have for their aim the generation of steam and power at reduced costs. These engineers must reduce all steam, power, and heat wastes to a minimum.

The two greatest fields for opportunity in lowering the costs of steam and power today in textile mills are, first, to raise boiler efficiency, and, second, to pass all process steam through power generating units before it goes out to the processes. Bled steam, both high and low pressure, is a tremendous factor in lowering power and manufacturing costs in plants of all kinds, and it is bled steam that is saving the lives, so to speak, of the individual power plants, and placing them in a position from which they cannot be ousted by the power companies.

The foregoing is but one of the numerous arguments as to why some engineering representative from every progressive textile concern should attend this power show.

Army Quartermaster Places Textile Contracts

PHILADELPHIA.—Depot Quartermaster, U. S. Army, has placed several large textile contracts this week. On Oct. 14 they received bids to supply them with 547,250 yd., unbleached cotton duck, 28" wide, five concerns submitting proposals. Award of this item has been made to the Brookside Mills, Knoxville, Tenn., whose bid on this was 20.19c., less 2% ten days. Officials announced that contract calls for 500,000 yd.

Bids were opened to supply the depot with 494,517 pr., cotton stockings, five firms bidding on this item. Contract was awarded to the lowest bidder, Durham Hosiery Co., who will supply these at 9.38c. per pr.

Lazarska Prints Star in Cheney Spring Line

Florals, Dots, Geometrics, Are Squared—Batik Art Influences Designers

A group of prints, the work of Madame Lazarska, Franco-Polish artist, responsible for the fad of batiking on wood which has taken the Paris society and art world by storm, were the leading features of Cheney Brothers' spring, 1930 line, which was shown Tuesday at the N. Y. showrooms. The fabrics were exhibited together with examples of the original decorative panels whose technique inspired the silks. "Pinturas," Spanish moderns, were also introduced, interpreting the Iberian motif in the French manner. Henri Creange, of Cheney Brothers, was the chief speaker at the opening and he explained the significance of the fabrics.

An important style trend stressed by Cheney was the influence of the new feminine silhouette on the designs or rather arrangement of designs in the spring prints. When the straight "tube" silhouette prevailed, it was explained, the relief of informally spaced and scattered designs was necessary. Now that curves are again permitted, a certain primness or formality in print design is demanded to show the new silhouette to advantage.

An exhibition of the work of Madame Lazarska in batik on wood, the first showing of this new Paris art in America was held in connection with the introduction of the prints reflecting this new art. Among the most important works shown were panels interpreting Raquel Meller, Ida Rubenstein, and Argentina in their most expressive dances; Noah's Ark, a decorative panel on the "Ile de France" which has been reproduced in silk; "The Stilled Tempest," a charming allegory representing a fragile bark on an ocean barely calmed.

The tremendous vogue which Paris predicts for dots of all sizes is reflected in the series of novelty dots forming an important part of the Cheney spring line. "Dot" is a somewhat inadequate heading under which to group this collection, for by clever manipulation of color and border effects they fall into patterns far more distinctive than the name implies. Plaids forecast by Cheney last year as a coming vogue are shown in several new versions, together with a number of diagonals for daytime. A large group of chiffons for both formal and informal wear, are presented, and it is noticeable that a trend to larger designs and wider spacing distinguishes the new prints for formal occasions.

Narrow edgings are freely introduced throughout the collection meeting the need of the new silhouette. They supply individual trimmings and the desired color contrast, and are so printed that the effect is that of hand-blocked prints.

OBITUARY

Hugh G. Chatham

Hugh G. Chatham, president of the Chatham Mfg. Co., Winston-Salem and Elkin, N. C., and one of North Carolina's outstanding industrial and political leaders, died in Johns Hopkins Hospital, Baltimore, Md., Oct. 10, as a result of pneumonia which followed a major operation. Mr. Chatham was 66 years years of age and, although he had been ill for more than a week, only his relatives and most intimate friends were aware of his critical condition. Born on a plantation on the present site of Elkin, he was a son of the late Alexander Chatham, founder of the original enterprise that later became known as the Chatham Mfg. Co. Mr. Chatham received his advanced education at Vanderbilt University, Nashville, Tenn., and then proceeded to learn the details of manufacturing woolen fabrics by weaving in his father's plant.

When the Chatham Mfg. Co., was incorporated, Mr. Chatham was elected president, a position which he held until his death. The business was remarkably successful and in 1906, another plant was established at Winston-Salem and Mr. Chatham took up his residence there. He was always active in public affairs and at different times served as State Senator from Forsyth County, president of the North Carolina Railroad, member of the Council of National Defense during the World War, and chairman of the State Democratic executive committee. He was one of the promoters of the Elkin & Alleghany Railroad Co.

In 1894, he married Miss Martha Lenoir Thurmond, and in addition to his widow, he is survived by a daughter, Mrs. Ralph Hanes, and a son, Thurmond Chatham, both of Winston-Salem. He is also survived by four brothers, Paul Chatham, Charlotte, N. C., R. M. Chatham, Dan Chatham, and Alex Chatham, of Elkin; and one sister, Mrs. M. E. Motsinger, of Winston-Salem.

Funeral services were conducted by his intimate friend and pastor, Dr. C. C. Weaver, at the Methodist Episcopal Church, in Winston-Salem, and burial followed in the Chatham family plot at Elkin, Oct. 11. Governor O. Max Gardner, in a statement from Raleigh, N. C., paid the following tribute: "This day a great man has fallen in North Carolina. I have never known a nobler man than Hugh Chatham. He was the purest, most patriotic, unselfish and devoted of all the men my public life has touched. His death affects me immeasurably, but the State has suffered most. He was truly one of North Carolina's great sons."

J. L. Hartsell

J. L. Hartsell, president and treasurer, Hartsell Mills Co., Concord, N. C., died from a sudden heart attack at his home Oct. 10. He was a son of the late Jonah and Eliza J. Hartsell and was born in Stanley County (N. C.), Dec. 4, 1864. After spending his early boyhood on the farm, he was educated and became a school teacher. From 1885 until 1905 he was connected with the mercantile firm of Cannon & Fetzer, in Concord, but he then became interested in the textile industry and was one of the organizers and the first manager of the Young-Hartsell mill, which is now owned by the Hartsell Mills Co. Mr. Hartsell was one of the first cotton manufacturers in the State to institute the 55-hour week schedule which has been in effect in his plant for about 12 years. At the time of his death, Mr. Hartsell was chairman of the city school board and a steward in the Methodist Episcopal Church of Concord. He is survived by his widow, and three children.

Francis R. Masters

Francis R. Masters, who retired from the partnership of Lawrence & Co., at the end of last year, died on the morning of Oct. 13, at his farm at Copake Iron Works, N. Y. He was born almost 68 years ago in Dobbs Ferry, N. Y., where his father was a Presbyterian minister. Two of his sisters established there and conducted the famous Masters' School for Young Ladies, a nationally known institution. Mr. Masters spent 50 years in the New York dry good trade, starting as a young boy with Chase, Bartholow & Co., then a dry goods commission house in Worth St. He was subsequently connected with Ross-Campbell & Co. and Minot, Hooper & Co. before establishing his own business in 1896 under the name of Francis R. Masters & Co. About 20 years ago he became assistant sales agent for the American Woolen Co. under Clifford Woodhull and later, after a brief retirement, was associated with Wm. Whitman & Co. He joined the firm of Lawrence & Co. in 1916 and retired Dec. 31, 1928. He was chairman of the committee that handled a very difficult situation in cotton goods arising in Cuba from the deflation of 1919-1920 and was credited with doing an excellent piece of work in that connection. Because of the location of his farm, near the Tri State Park, Mr. Masters was greatly interested in state park work and accepted the chairmanship of the Taconic Park Commission, of the State of New York. He was chairman of the board of governors of the Merchants Club and active in the Union League Club. Mr. Masters leaves a widow and a son, Robert, who has charge of the export department of Lawrence & Co.

W. R. Bateman

William R. Bateman, senior partner in the wool brokerage firm of W. R. Bateman & Co., and one of the oldest wool brokers in Boston, died recently in his 75th year. Born in Hull, Eng., he was educated in the public school of East Medway, Mass. and at Portland, Me. At the age of 14 he entered the wool brokerage firm of George W. Bond & Co., where he received a thorough education in the wool business. In 1880 he went into business on his own account and was the first importer of South American crossbeds to the Boston market.

Matthew S. Kevlin

Matthew S. Kevlin, who was identified with the wool industry during the greater part of his life and was the inventor of several machines used therein, including a wool dryer, died at the home of his daughter, Mrs. John J. Mallaney, Gardner, Mass., Oct. 9, after a long illness. He was born in Adams, Mass., 62 years ago, was at one time proprietor of the Adams Machine Co. and had been associated with the John T. Slack Corp., Springfield, Vt. He is survived by two brothers, James H. and David L., and by two daughters.

BUSINESS NEWS

Improvement at Exposition Mills

The Exposition Cotton Mills, Atlanta, Ga., have bought additional "Breton Mercerol" process equipment from Borne Scrymser Co., New York. The equipment is manufactured and furnished by Herbert Hinckley, Inc., of Charlotte, N. C.

Merrimack Card Clothing Co. Is Increasing Production

The Merrimack Card Clothing Co., Andover, Mass., makers of card and napper clothing, are installing new card clothing machines which will increase their production more than 25%.

Franklin Process Co. to Occupy New Quarters in New York

The Franklin Process Co. will move its New York office from 66 Leonard Street to 40 Worth Street, the Merchants Square Bldg., Rooms 916 and 917. These new quarters, which are more spacious and better equipped than the old quarters, will be occupied about Nov. 2. Increased demand made necessary this betterment of facilities.

Allison R. Fletcher, formerly of the Providence plant, is now permanently located in New York as assistant manager under John Ervin.

C. E. Ruth Joins Homestead Valve Mfg. Co.

The Homestead Valve Mfg. Co., Coraopolis, Pa., announces the appointment of C. E. Ruth, formerly of the engineering department of the Rust Engineering Co., as district sales manager in the district including northern Pennsylvania, Ohio, western New York, and Ontario. This addition to the factory sales force will enable the company to give closer sales supervision and also increase engineering service to valve users of this district.

Wyandotte Soda Ash Now Shipped in Paper Bags

The Michigan Alkali Co., of New York City and Wyandotte, Mich., is notifying its customers that future shipments of soda ash may be made in Taggart-Bates multiwall paper bags. Each bag will carry 100 pounds.

The new container is built up of 5 plies of a special kraft paper. Each bag is virtually a nest of five separate bags united into one. The makers guarantee these bags against leakage, breakage and moisture. The Michigan Alkali people claim that the new paper bag cuts down considerably the amount of dust raised in handling.

The Carels Freres-Worthington Diesel Engine

Carels Freres of Ghent recently completed their first engine under license from the Worthington Pump & Machinery Corp. The engine, a 4-cylinder 2-cycle, double-acting unit, developing 4,000 b.hp. at 128 r.p.m., has cylinders 28 inches in diameter and a stroke of 40 inches. It is similar to the engines that Worthington has furnished the Shipping Board and is to drive a large alternator in South America.